

ASSESSMENT OF AGRICULTURAL CONTRACTS FOR MARKET ACCESS IN SOUTH AFRICA A SMALLHOLDERS' PERSPECTIVE

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EXECUTIVE SUMMARY

1. Objectives: This project intends to contribute to the on-going debate about whether and how restructured agri-food markets can provide viable market opportunities for small-scale farmers in Africa. It aims at analyzing contract farming from the smallholder perspective and at better understanding the implications for small-scale farmers regarding contractual arrangements, contractual choices and forms with processing and/or marketing firms. It also aims at assessing contract farming potential for poverty alleviation and at highlighting the conditions facilitating the integration of small-scale farmers in restructured markets.

2. Methodology: Studies conducted in South Africa will analyze farming systems and the livelihoods of farmers under contracting schemes. This entails the analysis of different types of contractual agreements linking small-scale farmers with processing and/or marketing firms leading to their integration into restructured markets. In addition it requires the examination of the local conditions and rural dynamics in which farmers engage in some type of contracting. Based on empirical research and a pluridisciplinary approach, the study will develop three major research topics:

- The characterization of small-scale contract farmers in terms of farming and marketing practices including product specificities; production system and system of activities; assets including land size, equipment, title deeds; and an assessment of their livelihoods conditions.
- In depth assessment of different types and forms of contracts in which these smallholders are engaged (i.e. specificity of contracts, opportunities, constraints and major obstacles)
- Analysis of the situations in which small-scale contract farmers operate, focusing on two levels: i) analysis at the community level to comprehend local agricultural product market dynamics, ii) local dynamics associated with national land and agricultural policies.

3. Significance of the proposed research: The modernization of markets, combined with the dismantling of international commodity agreements and the liberalization and restructuring of agricultural and agri-food markets, resulted in both the rise of supermarkets and the growth of contract farming in developing countries (Swinnen, 2007). Although contract farming could respond positively to the market access problems of small-scale farmers, the latter face many constraints on both the production side and the financial side. In this context, can African smallholders really benefit from contract farming? Is contract farming an effective way for smallholders to escape poverty? While the general trends of market restructuring have exclusionary effects on small-scale farmers, it is important to determine the suitability of contract farming (defined in its widest sense inclusive of

marketing and production contracts as well as outgrower schemes) as a vehicle for linking small-scale farmers to agribusiness supply chains. Given the political imperative of social inclusion, it becomes necessary to analyze how to promote the conditions facilitating the integration of these farmers in restructured markets.

4. The research enabled to identify six types of contractual arrangements between farmers and buyers/agribusinesses: (i) Long term total integration contracts (Resource providing contracts); (ii) Short-term quasi-total integration contracts (Resource providing contracts); (iii) Production specification contracts (Production management contracts); (iv) Production management and market specification contracts (Production management and market specification contracts); (v) Certified market specification contracts (Market specification contracts); (vi) Ad hoc ‘informal’ contracts. Shaped according to and their efficiency depends on several internal and external factors. The results, however, show that contract farming is not a panacea for small-scale farmers. As such the results emphasizes pros and cons regarding contract farming. On the positive side: (i) the effectiveness of the development of contracts engaging small producers; (ii) improved agricultural production of contract farmers, (iii) better access to services (training, capacity building, technical assistance, etc.) and resources (production factors, inputs, credit, information), (iv) new opportunities to participate in markets, including “modern” competitive market segments subject to strict norms and regulations (standards for fresh fruit exports for example) which are extremely difficult to penetrate, even for large scale commercial farmers. On the negative side: (i) the current number of small producers involved in contractual agreements remains limited; (ii) those farmers engaged in contracts with buyers/agribusinesses are already better-off or have benefited from significant public support – leading to question the effectiveness of contract farming overall, for resource-poor farmers in particular; (iii) the transfer of production management and factors to agribusinesses; (iv) the increasing role of stringent norms and standards in the governance of value chains and “modern” market channels progressively drives contractualization and pushes toward more fully vertical integration.

5. Several tailor-made conditions for contract farming to integrate small-scale farmers: (i) Correctly address the issues and target the right parties; (ii) Realistically identify the constraints to be addressed by contracts; (iii) Niche markets, quality and family labor productivity to be emphasized; (iv) Establishment of mutual trust, respect, and benefits; (v) Promotion of fairness and equity in a long-term perspective, with an incremental process; (vi) Create a “virtuous circle” of private-public investments; (vii) Establishment of dialogue – allowing for flexibility.

CHAPITRE 1 - PROBLEM STATEMENT: A NECESSARY RESEARCH PROJECT EMPHASIZING THE SMALLHOLDERS' PERSPECTIVES

This project intends to contribute to the on-going debate about whether and how restructured agri-food markets can provide viable market opportunities for smallholders. It aims to better understand the implications for small-scale farmers of contractual arrangements with processing and/or marketing firms, and to assess their potential for poverty alleviation. To do so, studies conducted in Kenya and South Africa will analyse farming systems and livelihoods of farmers under contracting schemes, the merits of different contractual arrangements and the role of the local context. The project intends to propose tailor-made models to increase small-scale farmers' market access through contracting arrangements and to draw specific policy recommendations to support their implementation.

A. Background: globalization, market restructuring and contractual arrangements

Following the dismantling of international commodity agreements and the liberalization of agricultural and agri-food markets, agricultural markets have been restructured, becoming increasingly consumer-driven and vertically integrated. The modernization of markets resulted, besides others, in the rise of supermarkets and in the growth of contract farming in developing countries (Swinnen, 2007). Contract farming can be defined as an agreement between farmers and processing and/or marketing firms for the production and supply of agricultural products with conditions arranged in advance (Baumann, 2000; Eaton and Shepherd, 2001 among others). It can basically be divided into two types: contracts that only specify conditions for delivery and production processes ("Forward market contract"), and contracts where some form of input supply, technical advice and control by the trader is entailed ("Interlinked factor and market contracts"). Contracting is fundamentally a way of allocating risk between producer and contractor (Eaton and Shepherd, 2001).

As pointed out by Reardon et al. (2003) and Biénabe et al. (2007) among others, the rise of supermarkets resulted in most countries in the establishment of centralized buying and distribution centres, with: (i) concomitant shifts from traditional brokers to new specialized/dedicated wholesalers and (ii) a decline of traditional wholesale systems. Although, in the retail sector, quasi-formal and formal contracts are elaborated only in some specific cases to provide "incentives to the suppliers to stay with the buyer and over time make investments in assets specific to the retailer specifications regarding the products" (Reardon et al., 2003), the reliance on specialized/dedicated wholesalers usually resulted in a shift towards preferred suppliers' systems to select producers capable of meeting supermarket quality and safety standards. In this project, we intend to cover the wide

diversity of arrangements and consider both formal and informal types of contractual arrangements.

The World Development Report (WDR) 2008 argues that contract farming is one of the ways for smallholders in developing countries to escape from poverty. It is seen as a tool for fostering smallholder participation in restructured markets and new value chains, increasing and stabilizing smallholder incomes. Smallholders are often considered to be very efficient producers in terms of labor intensity and labor-related transaction costs, but they also often suffer from capital and liquidity difficulties, and lack of access and/or capacity to adopt technological innovations. Indeed, contract farming with supermarkets or processors could help them overcome those constraints and, as many farmers in developing countries only have access to limited assets, the focus on integrating smallholders into modern value chains through contract farming is seen as an important channel for poverty reduction. Selling under contract to supermarkets or big agro-processing firms may also facilitate farmers' access to credit. The supermarket chains can provide evidence to banks of the existence of a contract or serve as a collateral substitute for producer. Minten et al. (2006) show that in Madagascar most high-standard fresh fruit and vegetable production is produced by small farmers on a contract-basis with the agro industry which includes the supply of inputs, credit and extension services; furthermore, they show that this contract-based export production has important positive effects on farmers' productivity and income. Effective producer organization could support contracting schemes within high-value supply chains, providing for lower transaction costs and lower risks of farmers contract default (peer pressure, joint collateral, etc.) (Coulter et al., 1997; Biénabe and Sautier, 2005).

However, contractual arrangements with small-scale farmers are the exception rather than the rule. Louw et al. (2007) point out that the new dominant market players have tended to favor suppliers who can ensure high volumes, consistent quality and can do so in the long run to minimize risks of supply failure and transport and monitoring costs. Many studies also indicate that smallholders are excluded because of growing standards (Key and Runsten 1999; Reardon and Berdegue 2002; Weatherspoon and Reardon 2003 among others). Moreover, Baumann (2000) and the World Bank point out that, besides farm size, a legal title over land; good health, access to physical, human and social assets (education, irrigation, transport, roads, a proven ability to hire labor or enough family labor) and physical assets (wells, cold chains, greenhouses, good quality irrigation water, vehicles and packing sheds) are often required for smallholders to enter in contract farming. Small farmers most prone to be involved in a contract are those who have some non-agricultural income alternatives allowing them to bear the risk of signing a contract. Further, Goldsmith (1985) highlights the fact that many contracting schemes are developed in high potential areas with fertile soil and access to irrigation and transport. Although contract farming could respond positively to market access problems of small-scale farmers (limited access to markets; market monopolies for inputs and outputs; lopsided market information; policy and institutional bottlenecks), they face many constraints on the production side (problems of

land tenure and access to land; irregularity of production in volumes and quality (pest and disease problems); lack of access to technologies (varieties) and equipments) and on the financial side (complex financing systems, problems of liquidities; difficulties to access credit due to a lack of collateral; high interests rates) (IFPRI, 2004). In this context, can African smallholders really benefit from contract farming? Is contract farming an effective way for smallholders to escape poverty?

B. Research question – Contract farming in South Africa

South Africa's (political) economy has undergone substantial structural reform since the 1990s. Aside from institutional restructuring in the public sector and labor market policy reforms, main policy initiatives for the agricultural sector included trade liberalization and trade policy reform combined with policy reforms that were designed to encourage economic growth as well as uplift the standard of living of smallholders and the poorest. These include mainly land reform (mainly under the redistribution and restitution programmes), but also smallholder promotion (Comprehensive Agricultural Support Programme (CASP), the Land and Agrarian Reform Project (LARP) (Didiza, 2006) as well as the AgriBEE Charter (DTI, 2008). These reforms have exposed African farmers to new market prospects as well as new challenges in a context of restructured agri-food markets.

As shown by Vermeulen *et al.* (2008), the consolidation of procurement directly from farmers in South Africa was accompanied by the development of diverse contract farming practices, such as outgrower schemes, long-term spot purchasing arrangements, marketing contract and seasonal to one-year production contracts, with a very low level of participation of small-scale farmers in these contracting schemes. Indeed, these practices usually entail higher levels of sophistication and represent higher barriers to entry for small-scale farmers, compared to spot markets. Evidence from other countries suggests that high-value crops for exports are increasingly grown on large farms, thereby excluding smallholders from the supply chain (Dolan and Humphrey, 2004).

While the general trends of market restructuring have clear exclusionary effects on small-scale farmers, it is certainly important to determine the suitability of contract farming (defined in its widest sense inclusive of marketing, and production contracts as well as outgrower schemes) as an institutional vehicle for linking small-scale farmers to agribusiness supply chains. Contractual agreements provide tools for public and private actors to generate concrete options to accommodate small-scale farmers in the commercial agribusiness sector. Given the political imperative of social inclusion, it becomes thus necessary to analyze how to promote the conditions facilitating the integration of these farmers into restructured markets.

C. Research objectives – Analyzing contract farming according to a smallholders perspective

The overall objective of this study is to better understand the implications of different types of contractual arrangements for small-scale farmers and to assess their potential for poverty alleviation. This will allow us to answer several questions:

1. Can contractual arrangements support small-scale farming system consolidation? Can these arrangements improve farmers' livelihoods? If yes, under which conditions? Can any type of farmer, engaged in any commodity and production systems, benefit from contracting or are there thresholds and conditions, for example, in terms of productive investment, land assets, etc.?
2. Can we develop general models of contracting adapted to small-scale farmers? How would the former facilitate the integration of these farmers in restructured markets and what impact would it have on farmers' livelihood consolidation and poverty alleviation?
3. Which are the critical success factors to turn contracting into a tool for poverty alleviation? Is collective action a requirement for successful contractual arrangements with small-scale farmers? Can it enhance the potential for contract farming as a tool for poverty alleviation? And, if so, which kind of external support is required? Do current agricultural, land and other policies facilitate the integration of these farmers in restructured markets?

The objective is to analyze contract farming from the smallholder perspective and to assess the conditions facilitating the integration of these farmers in restructured markets. Based on this analysis, the project intends to propose tailor-made models to increase small-scale farmers' market access through contracting arrangements and to draw specific policy recommendations to support their implementation.

This entails the analysis of different types of contract farming and contractual agreements linking small-scale farmers with processing and/or marketing firms leading to their integration into global restructured markets, but also the examination of the local conditions and rural dynamics in which farmers engage in some type of contracting. Detailing these contractual agreements and their implications from a smallholders' perspective leads to a better understanding of the prospect of contract farming for smallholders. The contextualization of contract farming with the actual situations of African smallholders enables reflection on and development of recommendations on broader land and agricultural policies.

The central hypothesis of the study is that small-scale farmers can increase their participation in markets through contracting arrangements and improve their livelihoods. While the general trends of market restructuring have clear exclusionary effects on small-

scale farmers, it is also argued that there is scope for restructured agri-food markets to provide viable market opportunities for smallholders.

The main secondary objectives that will be scrutinized are the following:

- To characterize small-scale contract farmers in terms of farming and marketing practices including product specificities; production system and system of activities; assets including land size, equipment, title deeds; and an assessment of their livelihoods conditions (topic 1). The study intends to detail which type of farmers engage in which type of contracts.
- To develop an in-depth assessment of different types of contracts in which these smallholders are engaged (topic 2). Attention will be drawn to the specificity of these contracts and to assessing, from a smallholder perspective, opportunities, engagements, constraints and major obstacles. This will entail understanding implications of the contract specifications in terms of access to resources and assets, risk management and farming practices. This is to give ground to generate models of contractual agreements tailored to small-scale farmers.
- To analyze the situations in which small-scale contract farmers operate (topic 3). The contextualization of smallholder contract farming will be held at two levels: first, by conducting analysis at the community level to comprehend local agricultural product market dynamics, collective action, land structures, etc.; and, second, by considering local dynamics associated with national land and agricultural policies. This will allow the understanding of how different local conditions influence farmers' engagement in and benefits from contracting, and subsequently will feed policy recommendations.

Assessing the above will lead to increased scientific knowledge on the implications of different types of contractual arrangements for small-scale farmers and on their potential for poverty alleviation. The project intends to propose tailor made models to increase small-scale farmers' market access through contracting arrangements and to draw specific policy recommendations to support their implementation. Detailing these contractual agreements and their implications from a smallholders' perspective will lead to a better understanding of the prospect of contract farming for smallholders and poverty alleviation. The contextualization of contract farming within the actual situations of African smallholders will enable reflection on and development of recommendations for broader land and agricultural policies.

Several outcomes should also directly benefit the agricultural sector:

- *Improved support for small-scale farmers:* Market access is stressed as one of the major constraints for small-scale farmers in Africa. By assessing the potential of contract farming to address this constraint and generating knowledge to design small-scale farmers' tailor-made contracting arrangements, this project is intending to provide guidelines in support to better target private and public support. It will contribute to on-going debate about how restructured agri-food markets can provide viable market opportunities for smallholders.
- *Public policy recommendations:* This project also aims at providing recommendations for policy making towards increasing and securing small-scale farmers' market access through adapted contracting models.
- *Capacity building:* The research process will also help building capacity on these critical issues through the participation of several masters and PhD students, some of whom are already inserted in public institutions (i.e. Western Cape Department of Agriculture). Master students – all black Africans - will work together with the research team, providing for mutual enrichment and exchange.

CHAPITRE 2 - STATE OF THE ART: AN EXTENSIVE LITERATURE REVIEW ON CONTRACT FARMING

Following the dismantling of international commodity agreements and the liberalization of agricultural and agri-food markets, agricultural markets have been restructured, becoming increasingly consumer-driven and vertically integrated. The modernization of markets resulted, besides others, in the rise of supermarkets and in the growth of contract farming in developing countries (Swinnen, 2007). Agribusiness firms in South Africa are following similar trends occurring in the US and Europe due to the industrialization and globalization of agriculture, which resulted in the tighter alignment of supply chains and promoted the emergence of fewer larger farms (Reardon *et al.*, 2003). This trend has the potential to exclude small-scale farmers from mainstream agro-food markets, in South Africa this is further exacerbated by colonial legacy which excluded smallholder farmers from mainstream food markets (Louw *et al.*, 2008)... In addition to this smallholder farmers do not have the economies of size and the access to technology that is required in order to be competitive. It is against this background that contract farming has now been recognized as a policy and planning priority, hence the need to provide guidance to the key economic players in agriculture to exploit the potential of this institution (Sartorius & Kirsten, 2004). There is significant participation of smallholder farmers in contract farming, though the extent of their involvement is still relatively lower (Sartorius & Kirsten 2004). Many smallholder farmers are actively involved in the supply of fruit and vegetables but relatively few individual in beef, pork, poultry and egg (Sartorius & Kirsten 2004).

Contract farming can be defined as an agreement between farmers and processing and/or marketing firms for the production and supply of agricultural products with conditions arranged in advance (Baumann, 2000; Eaton and Shepherd, 2001 among others). It can basically be divided into two types: contracts that only specify conditions for delivery and production processes ("Forward market contract"), and contracts where some form of input supply, technical advice and control by the trader is entailed ("Interlinked factor and market contracts"). Contracting is fundamentally a way of allocating risk between producer and contractor (Eaton and Shepherd, 2001). In this project, we intend to cover the wide diversity of arrangements and consider both formal and informal types of contractual arrangements. Contractual arrangements vary from verbal agreements, "handshake" agreements, seasonal contracts, and growing programmes, to formal outgrowing schemes. A majority of the commodities appears to be procured by some form of production or marketing contract. In fact, in South Africa 100 percent of the supply of tobacco, sugarcane, cotton, timber, meat, poultry and eggs is secured by some form of contracting whilst 78.5 percent of all fruit and vegetables processed is procured by some form of contracting –usually a pre-season marketing and price agreement.

As pointed out by Reardon et al. (2003) and Biénabe et al. (2007) among others, the rise of supermarkets resulted in most countries in the establishment of centralized buying and distribution centers, with: (i) concomitant shifts from traditional brokers to new specialized/dedicated wholesalers and (ii) a decline of traditional wholesale systems. Although, in the retail sector, quasi-formal and formal contracts are elaborated only in some specific cases to provide "incentives to the suppliers to stay with the buyer and over time make investments in assets specific to the retailer specifications regarding the products" (Reardon et al., 2003), the reliance on specialized/dedicated wholesalers usually resulted in a shift towards preferred suppliers' systems to select producers capable of meeting supermarket quality and safety standards.

The last World Development Report (The World Bank, 2007) argues that contract farming is one of the ways for smallholders in developing countries to escape from poverty. It is seen as a tool for fostering smallholder participation in restructured markets and new value chains, increasing and stabilizing smallholder incomes. Smallholders are often considered to be very efficient producers in terms of labor intensity and labor-related transaction costs, but they also often suffer from capital and liquidity difficulties, and lack of access and/or capacity to adopt technological innovations. Indeed, contract farming with supermarkets or processors could help them overcome those constraints and, as many farmers in developing countries only have access to limited assets, the focus on integrating smallholders into modern value chains through contract farming is seen as an important channel for poverty reduction. Selling under contract to supermarkets or big agro-processing firms may also facilitate farmers' access to credit. The supermarket chains can provide evidence to banks of the existence of a contract or serve as a collateral substitute for producer. Minten *et al.* (2006) show that in Madagascar most high-standard fresh fruit and vegetable production is produced by small farmers on a contract-basis with the agro industry which includes the supply of inputs, credit and extension services; furthermore, they show that this contract-based export production has important positive effects on farmers' productivity and income. Effective producer organization could support contracting schemes within high-value supply chains, providing for lower transaction costs and lower risks of farmers contract default (peer pressure, joint collateral, etc.) (Coulter et al., 1997; Biénabe and Sautier, 2005).

However, contractual arrangements with small-scale farmers are the exception rather than the rule. Louw et al. (2007) point out that the new dominant market players have tended to favor suppliers who can ensure high volumes, consistent quality and can do so in the long run to minimize risks of supply failure and transport and monitoring costs. Many studies also indicate that smallholders are excluded because of growing standards (Key and Runsten, 1999; Reardon and Berdegue, 2002; Weatherspoon and Reardon 2003 among others). Moreover, Baumann (2000) and the World Bank (2007) point out that, besides farm size, a legal title over land; good health, access to physical, human and social assets (education, irrigation, transport, roads, a proven ability to hire labor or enough family labor) and physical assets (wells, cold chains, greenhouses, good quality irrigation water, vehicles and packing

sheds) are often required for smallholders to enter in contract farming. Small farmers most prone to be involved in a contract are those who have some non-agricultural income alternatives allowing them to bear the risk of signing a contract. Further, Goldsmith (1985) highlights the fact that many contracting schemes are developed in high potential areas with fertile soil and access to irrigation and transport.

Although contract farming could respond positively to market access problems of small-scale farmers (limited access to markets; market monopolies for inputs and outputs; lopsided market information; policy and institutional bottlenecks), they face many constraints on the production side (problems of land tenure and access to land; irregularity of production in volumes and quality (pest and disease problems); lack of access to technologies (varieties) and equipments) and on the financial side (complex financing systems, problems of liquidities; difficulties to access credit due to a lack of collateral; high interests rates) (IFPRI, 2004). In this context, can African smallholders really benefit from contract farming? Is contract farming an effective way for smallholders to escape poverty?

A. Contract farming rationale for small-scale farmers

Contract farming is not a new device in Southern countries. It had been widely used both in contexts of lack of private companies and consequent state intervention and of lack of interest of private companies in primary production that was seen as too risky and not enough profitable. After the period of the dismantling of international commodity agreements and the liberalization of agricultural and agri-food markets where contract farming was not predominant, agricultural markets have been restructured, becoming increasingly consumer-driven and vertically integrated. The modernization of markets in a context of state withdrawal from market regulation resulted, besides others, in the rise of supermarkets and in a new growth of contract farming in developing countries (Losch et al., 2002 ; Swinnen, 2007; Swinnen et Maertens, 2007; Key et Runsten, 1999 ; Reardon et al., 2009 ; Vermeulen et Cotula, 2010). Through the idea of global consumption, most agribusinesses have been entering into contractual arrangements with suppliers for a number of reasons which includes regular supply of quality products, global costs effective sourcing and niche markets supplies (Little and Watts, 1994).

As pointed out by Reardon et al. (2003) and Biénabe et al. (2007) among others, the rise of supermarkets resulted in most countries in the establishment of centralized buying and distribution centers, with: (i) concomitant shifts from traditional brokers to new specialized/dedicated wholesalers and (ii) a decline of traditional wholesale systems. Although, in the retail sector, quasi-formal and formal contracts are elaborated only in some specific cases to provide "incentives to the suppliers to stay with the buyer and over time make investments in assets specific to the retailer specifications regarding the products" (Reardon et al., 2003), the reliance on specialized/dedicated wholesalers usually resulted in a shift towards preferred suppliers' systems or outgrower schemes to select producers capable of meeting supermarket quality and safety standards.

The 2008 World Development Report (World Bank, 2007) argues that contract farming is one of the ways for smallholders in developing countries to escape from poverty. It is seen as a tool for fostering smallholder participation in restructured markets and new value chains, increasing and stabilizing smallholder incomes. Jaffee (1994) noted that this institutional framework can be utilized to link smallholder and emerging farmers into commercial markets. Smallholders are often considered to be very efficient producers in terms of labor intensity and labor-related transaction costs, but they also often suffer from capital and liquidity difficulties, and lack of access and/or capacity to adopt technological innovations. Indeed, contract farming with supermarkets or processors could help them overcome those constraints and, as many farmers in developing countries only have access to limited assets, the focus on integrating smallholders into modern value chains through contract farming is seen as an important channel for poverty reduction.

B. Definitions and characterization of the contracts

Contracts are means by which people seek, identify and negotiate opportunities from exchange. Contract farming can be defined as an agreement between farmers and processing and/or marketing firms for the production and supply of agricultural products with conditions arranged in advance (Baumann, 2000; Eaton and Shepherd, 2001 among others). A contract is a legally binding or informal agreement concerning a bargain, which is essentially commercial in its nature and involves sale or hire of a commodity. da Silva (2005) defines contract farming as an intermediate mode of coordination whereby the conditions of exchange are specifically set among transacting partners by some form of legally enforceable binding agreement. Specifications can include production technology, price discovery, risk sharing and other product and transaction attributes. Contractual agreements are shaped by a number of factors, which includes property rights relations, labor process and organizational form (Little and Watts, 1994). The identification of variables that determines contracting is cumbersome (Bellemare, 2009).

In institutional economics, contract farming is described as a hybrid agreement that positions itself between the two extremes of the institutional arrangement spectrum, namely spot markets and market integration. On spot markets, products are sold and bought immediately, at a price set during the transaction and with no involvement of the buyer in the production or in the definition of the conditions of the transaction. At the other extreme, full vertical integration implies that the buyer controls all stages of production, processing and distribution throughout the value chain. Between these, contract farming allows the buyer a measure of control (decision-rights) over production without formally engaging in the farming activities (Grosh, 1994; Ménard, 2005). The allocation of risk depends on the terms of the contracts. As such, contract farming provides a response to market failures with respect to inputs, credit, insurance, information and outputs, by reducing the associated transaction costs, monitoring, transfer of goods and bargaining and enforcement (Key and Runsten, 1999; Poulton *et al.*, 2010).

Literature on contract farming differentiates between three classic types of contracts according to their main objectives, the transfer of decision-rights and the shift of risk from the farmer to the buyer (Key and Runsten, 1999; Mighell and Jones, 1963; Minot, 1986). *Market-specification contracts* refer to pre-harvest agreements that engage a buyer in providing a market outlet to a farmer under pre-established conditions often related to price, quantity, quality and timing. Thus, the farmer delegates a part of the risk to the buyer, while keeping control over production. Both the farmer and the buyer benefit from the price premium on the quality and stability in the flow of supply of products to specified markets. *Management-providing (production-management) contracts* are similar to marketing contracts. These contracts however delegate some of the farmer's control over the production process to the buyer. In terms of these contracts the adoption of specific farming practices (land preparation, planting dates, seedlings, fertilizers application rates and dates etc.) or the choice of post-harvest management practices will come under the technical supervision of the buyer to attain higher quality and to control the timing of output. The buyer recoups the costs of extension from the proceeds of marketing a higher-quality product according to the timing of demand. Finally, *resource-providing contracts* are the closest arrangement to full vertical integration and require not only that the buyer provide a market outlet to the farmer but also that he delivers input packages on credit and corresponding technical assistance in its use. It results in the buyer having major control over production with the contract shifting most decision-rights and risks to the buyer.

As further discussed below, contract farming is an institutional arrangement that operates as an intermediary between spot and vertical integration (Key and Rusten, 1999). It is generally considered that contract farming ensures consistent procurement and therefore helps processing companies optimizing their processing capacity and their fixed assets investment with regard to spot markets risks of discontinuities while avoiding integrated production risks (see among others Glover, 1984 ; Glover et Kusterer, 1990 ; Jaffee, 1994 ; Little et Watts, 1994 ; Key et Runsten, 1999 ; Eaton et Shepherd, 2001). Companies have more control over production than on spot markets while not incurring directly risks associated with land and labor.

1. Formality of the contract

Contract farming is diverse in nature and ranges from informal hand shake arrangements to formal written arrangements. Contracts in this expanded sense are found everywhere in agriculture. Most contractual agreements are verbal and are transitory in nature. Usually informal contracts are seasonal and are mainly found in fresh vegetables and tropical fruits, as it is suitable for those agricultural produce that requires minimal processing. In particular supermarkets frequently use this model to procure fresh vegetables from the farmers (Eaton and Shepherd, 2001). Financial investment is low and risk of non-compliance for both contracting partners is very high that is switching costs are very low. Furthermore this model largely depends on the availability of basic market and physical infrastructure.

A written contract can specify quantity and quality of the produce, price and price determination, condition of payment, price of output adjustability, contract duration, cultivation practices, and risk associated with the contract (Eaton and Shepherd, 2001). Price and price determination is one of the crucial elements a written contract contains. High level of illiteracy among smallholder farmers has been pointed out as an argument a strong and influential leadership to speak for them in the drafting of contracts (Watt, 1994).

In this project, we intended to cover the wide diversity of arrangements and consider both formal and informal types of contractual arrangements.

2. Diversity of types of contracts

Contracts are generally heterogeneous in nature (Little and Watts, 1994). They are designed to fit a unique trading situation (Just and Wu, 2009). Contract farming can involve a number of tangible variables, which include the type of farmers - ranging from peasant farmer to corporate agribusiness -, crops, and standards (quality) institutional and organizational configurations of contract employment (Little and Watts, 1994). Contractual agreements vary depending on a number of variables, which include asset fixity, frequency of trade, switching on and off cost, the legal environment and the inherent characteristics of the product (Kirsten and Sartorius, 2007).

Contract farming can basically be divided into two types: contracts that only specify conditions for delivery and production processes ("Forward market contract"), and contracts where some form of input supply, technical advice and control by the trader is entailed ("Interlinked factor and market contracts"). For interlinked factor and market contracts, terms of contract encompass inputs provision (such as agricultural inputs or cash flow), control over the management of the activities, and over product delivery in term of quantity, and/or price, and/or quality, and/or date of delivery (Jaffee, 1993 quoted by Moustier, 1998). This second type of contract involves a higher degree of interdependence between the producer and the buyer. Jaffee (1993 quoted by Moustier, 1998) adds to these two types of contracts trust-based or implicit contracts. In this type of coordination, no precise or formal mutual commitments are made between trade partners. Relationships are based on loyalty. Exchange reliability relies on trust that comes from mutual knowledge based on frequent or long term relationships, social and cultural identities or specific affinities between the two partners (Moustier, 1998). The trust can be strengthened by several control and sanctions mechanisms, which can be informal (such as neighborhood control...) or formal (through conciliation system) (Brousseau, 1993). Trust and reciprocity enable trade to take place, even in a very uncertain and unstable economic environment (Jaffee and Morton, 1995).

Some authors such as Vermeulen et al. (2008) or MacDonald (2003) propose a classification into three broad categories of contract farming namely, production specification contract, marketing specification contract and out-grower schemes. In production contract, the contractor provides inputs while the farmer provides land and labor. Under this

arrangement, farmer cedes substantial control over production decisions to the contractor in exchange for provision of critical inputs and value sharing is often largely beneficial to the contractor with farmers' payment being determined based on production costs (MacDonald, 2003). Production contracts are agreed upon before production has commenced. Duration of production contracts is usually on an annual basis. Marketing contracts specify the quantity, quality, price and outlet where the product is going to be delivered. Arrangements are done during the production period before harvesting and usually entail stronger negotiating power from farmers. Through this arrangement, the farmer owns the product in the production period (MacDonald, 2003). Under outgrower schemes, contractors have got a long term commitment of purchase which can span from 3-10 years in the South African context at least (Vermeulen et al., 2008). High degree of asset fixity or lumpy inputs is the dominant characteristic of out grower schemes.

Eaton and Shepherd (2001) propose another categorization of contract farming arrangements that consist in five different organizational types depending on resources of the "sponsor" and on the intensity of the relationship between the farmer and sponsor that is necessary. These are the centralized model, the nucleus model, the multipartite model, the informal model and the intermediary model. While agricultural produce can be contracted through any of these models, certain crops favor certain models. The centralized contract model involves a centralized processor or packers buying from a large number of small farmers and is used for products that require high degree of processing, monitor with quotas and tight quality control. It is typically characterized by vertically coordinated activities involving direct relationships between the contractor and the farmer. Production and quality standards are highly controlled and usually high valued crops favor this model (Eaton and Shepherd, 2001). This is prevalent in the poultry production and horticultural production in South Africa (Vermeulen et al., 2008). In the nucleus contract model, the contractor also owns and manages a central estate or plantation in addition to the processing plant. Here out-grower schemes develop. Central estate production is used to guarantee throughput for processing plant. Commitment by the contractor to provide inputs and technical service is high (Eaton and Shepherd, 2001). This model is mainly found in sugar cane estates, coffee and tea plantations in South Africa (Vermeulen et al., 2008). The multipartite contracting model involves a variety of organizations, frequently including statutory bodies, and can develop from the centralized or nucleus estate models, e.g. through the organization of farmers into cooperative or involvement of financial institution. It involves a number of stakeholders (private and public) jointly participating with the farmers and having exclusively different roles in the contracting. With such different goal orientated organizations, there is a need for a strong coordination mechanism for the contract to be a success (Eaton and Shepherd, 2001). Individual entrepreneurs of small companies characterize the informal model. In an intermediary contract model, an agent or middlemen links the contractor and the farmer. According to Eaton and Shepherd (2001), this disconnection between the contractor and the farmer often results in low income for the farmer, poor enforcement of quality standards and irregular production. Agribusiness

companies incur additional agency costs to their operational costs. This is prevalent in the South Africa fruit markets where agents' role is well pronounced.

3. Risk management dimensions

Agricultural decision-making is done in an environment of risks and uncertainty (Hardaker, 2004). Contracting is fundamentally a way of allocating risk between producer and contractor and it can consist of very different risk allocations depending on the contract specification: agreement on the level of production exchanged or price specification (Baumann, 2000; Eaton and Shepherd, 2001). More precisely, the tightness of contractual arrangements varies according to the depth and complexity of market provision, - the farmers and the buyer agree to terms and conditions for future sales and purchase of a crop or livestock product -, of resource provision, - in conjunction with marketing arrangement, the buyers agrees to supply selected inputs, including on occasions land preparation and technical advice-, and of management specifications, - the grower agrees to follow recommended production methods, inputs regimes, and cultivation and harvesting specifications (Eaton and Shepherd, 2001).

Risk can basically manifest itself at production and at marketing levels. Risk and uncertainty in the market manifest themselves through a number of attributes, which include price fluctuations, quantity, quality, supply timing and opportunistic behavior in case of arranged marketing and they can be related to perishability and rigidity of quality or of timing. Market risks are related to transaction risks and to growing price fluctuations. As noted by Bijman and Meijerink (2007), market liberalization in low income countries has contributed to increase market risks as private instruments have not properly developed to mitigate such risks. Production risks can manifest themselves through droughts, pest and diseases and lack of specialized skills. It is worth noting that these are likely to increase together with climatic shocks in the future (Haile 2005; Ahmed, Diffenbaugh et al. 2009). They can be related in particular to the length of the production cycle, to the scale of investment and to the specificity of the production inputs.

Farmers' decisions are subject to information, skills and resource limitations (Minot, 1986). Smallholders' production systems which are usually poorly capitalized and are extensive are particularly vulnerable to production risks. Risk aversion may disincentive smallholders to invest in their farm locking them into highly vulnerable low resource production systems. Price volatility may act as a strong disincentive for farmers to invest in farm production (Moschini and Hennessy, 2002) and this may even refrain the poorest from selling their production (Gérard et al., 2010) thereby contributing to maintain them in poverty traps (Kydd et al., 2002).

In order to mitigate risk and uncertainty in developed economies, farmers insure their crop or livestock. However in developing countries both insurance and credit markets are either thin or missing and in some cases collapsed because of high covariance risks. This can leave contracting as the only institutional form that can mitigate market risks and uncertainties

(Saenz Segura, 2006). Studies conducted in Asia by Reardon *et al.* (2009) and in South Africa by Biénabe and Vermeulen (2007) provide evidence that farmers can get a relatively stable market price for their produce when they are under contractual arrangements. Supportive actions to promote contract farming with smallholders may appear decisive to reduce marketing risks. Contract farming also serves to mitigate transaction costs (market research costs, screening costs) (Hoff *et al.* 1993).

On the other hand, contractual arrangements entail their own risks, that is the risks of opportunistic behavior from the two contracting parties (Ton and van der Mheen, 2009). Indeed, all contracts whether written or oral are incomplete because of the bounded rationality of contracting parties and the non-verifiability of relevant variables necessary to make them complete (Kirsten *et al.*, 2009). Therefore, opportunistic behavior may take place such as subversion, manipulating of scheme rules, treating contract farming as secondary to other agricultural and non agricultural activities and withholding labor from critical tasks such as harvesting. Transaction risks, associated to a potential breaking up of business partner relationship (opportunistic buying behavior) are particularly high for farmers that have invested in specific assets as further discussed below and when volumes traded are important. Compliance to standards in particular may entail investment in specific assets. Other risks associated with the contract are also accounted for in the acts of God clauses. These arise for instance when the farmer fails to meet the contractual requirements because of natural disasters such as hail, drought or outbreak of epidemic diseases. This also applies to the contractor when he fails to pay farmers because of unfavorable conditions in the market such as changes in consumer preferences.

C. Contract as a type of coordination mechanisms

The organizational forms of production and exchanges are to be reasoned based on their capacity to overcome the technical and economic constraint associated with growing the crop, on the type of product (processed or fresh in particular) and on market conditions. In order to properly comprehend contractual arrangements, it is important to discuss them in the wider context of coordination of the trade exchanges. Following Jaffee and Morton (1995), the exchange process can be described as involving:

- searching for exchange opportunities and partners,
- screening information about the products/ parties one wishes to deal with,
- bargaining over the terms of trade,
- transferring the goods, services, titles, cash, etc.,
- monitoring the exchange to assess whether the agreed terms are complied with,
- enforcing the stipulated terms.

These different aspects can be associated with problems of information, conflicts of interests and incompleteness in property rights and are thus sources of transactions costs. It is worth noting that an exchange, in its most general meaning, requires a clear legal framework (fiscal and trade legislation, sanitary rules, norms and quality standards). Moreover, physical markets usually require infrastructures to be set up: marketplaces, roads, storage facilities, common units of measure, and information tools. According to Williamson (1979, 1985), three main components of the trading environment determine the level of transaction costs: the asset specificity: degree of specialization of the assets used in the production and exchange process, the uncertainty: surrounding the availability and quality of products, as well as the assurance of market outlets and the operating 'rules of the game' and the competitive market structure. There are several types of institutional arrangements that can organize and coordinate the production and exchanges of agricultural products (inputs and outputs) and that define different kinds of coordination between producers and buyers. These can be categorized into spot market arrangements (market), vertical coordination (contract) and vertical integration (hierarchy). Van Lieshout et al. (1995) propose to approach arrangements based on a continuum of institutional arrangements that range from very limited to strongly institutionalized relationship and from pure market arrangements to strict vertical integration through farming contracts and including spot market sales/purchases, market reciprocity agreement, forward market contracts, interlinked factor and market contracts and vertical integration. Spot markets involve a relationship between producers and buyers (traders) strictly limited to the time of the transaction. Market reciprocity agreements reflect informal relationships, established over longer periods of time, which entail some degree of confidence and loyalty. Contract farming can be divided into two types: contracts that only involve the obligation to buy and sell specified quantities and qualities of product at particular times ("Forward market contract"), and contracts where some form of input supply and technical advice and control by the trader is entailed ("Interlinked factor and market contracts") as already indicated in the definitions part. Vertical integration means that production, processing and marketing are all within the same enterprise.

Transaction costs may vary according to the prevailing type of arrangements and the choice of market governance structure is influenced by a number of variables that influence transaction costs, which include frequency of trade, asset specificity, uncertainty, availability of substitutes and switch on and off cost as proposed by Kirsten and Sartorius (2007) following and enriching Williamson framework. According to van Lieshout et al. (1995), the types of arrangement that will be favored depend on the production and market risks faced by producers and buyers.

Table 1: Type of arrangements according to production and market risks

		Production risks		
		High	Medium	Low
Markets risks	High	Vertical integration	Vertical integration	Long-term contract
	Medium	Vertical integration	Long-term contract	Long-term contract/ spot market
	Low	Vertical integration	Long-term contract	Spot market

Source: Van Lieshout et al., 1995

1. Spot market

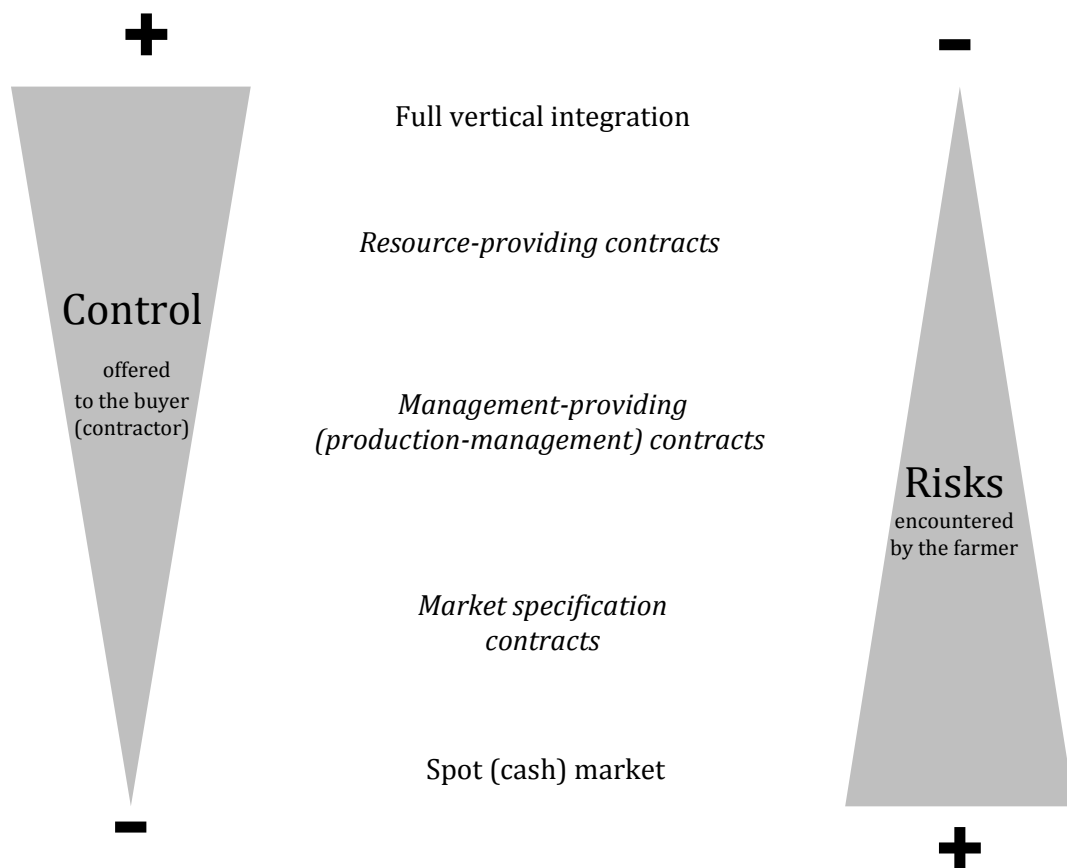
In the absence of perfect information, spot markets are less and less effective in coordinating supply and demand (Minot, 1986). Through this institutional arrangement there is no assurance that supplies will be properly timed and producers are often either unaware or unconvinced that time is worthwhile (Minot, 1986). An institutional arrangement such as spot market will only work effectively for those commodities that have little quality variations, less perishable, have short production cycles which do not require precise timing of supply and have stable and known markets (Minot, 1986; Kirsten and Sartorius, 2007).

2. Vertical integration and vertical coordination

Vertical integration works for crops that have important quality variation, have long production cycles, requires precise supply timing, have a complex markets and requires substantial amounts of specialized inputs yet at the same time do not require intensive use of labor or careful husbandry (Minot, 1986).

In its wider sense vertical coordination all the arrangements from pure market coordination through spot market (i.e. coordination mediated only by the prices on an anonymous market) to vertical integration (Moustier 1998). In its narrower acceptance, vertical coordination consists in the different forms of contracts that can be observed between actors.

The more the coordination goes toward integrated forms, the more the risk decreases, the resources access is secured and the bargaining power is strengthened (Jaffee, 1993 quoted by Moustier 1998). Nevertheless, vertical integration does not allow specific know-how and may face time constraints since functions are accumulated (Moustier, 1998). Thus, a highly centralized organization (vertical organization) or very rigid (very precise terms and restrictive contracts) may lead to prohibitive costs. Thus, flexible forms of coordination (implicit contract or contract on the products) may be more efficient, except in the case of high risk level or high asymmetric bargaining power conditions. Moreover, vertical organization may reinforce situations of dependence between actors (Moustier, 1998) (see Figure 1)



Source: Adapted by the authors from Mighell and Jones (1963) and Minot (1986)

Figure 1: vertical integration, risks and control

D. Contract farming, vertical integration and smallholder farming

Information asymmetry is an important feature in agricultural markets and impacts negatively on overall performance of the markets. As indicated in the first two sections of Table 1, farmers and agribusinesses are responsive to available information and perceptions/speculation on future scenarios when they make decisions regarding production and procurement. Characteristics of agricultural produce vary (i.e. seasonality, quantity, quality, perishability) and these need to be accounted for in the market: farmers should produce and dispose of products which meet consumers' varied preferences. In South Africa, farmers (especially SMALLHOLDERSs) do not have constant access to information regarding markets. Agro-processors and retailers would procure produce that meet the expectations of consumers in the various market segments they service. It is therefore apparent that there exists effective information transfer mechanisms to link agri-food industry stakeholders in order to meet consumer demands especially in the modern restructured markets found in South Africa. To this end, asymmetric information may lead to market failure: contractual arrangements, instead of spot markets, can serve as appropriate coordination mechanisms (Key & Runsten, 1999; Minot, 1986; Kirsten & Sartorius, 2002b). CF, as a form of vertical coordination, becomes an important remedy to market failure as indicated in the last section of table 1, contract farming may help smallholders to satisfy

standards set by agro-processors and retailers and thus indirectly meeting consumers' demands; hence high probability of their inclusion in restructured markets.

Table 2: Market failure and mechanisms of vertical coordination

Type of market failure and coordination problems that result	Circumstances under which failure occurs	Method by which institutions improve coordination	
		Contracting	Vertical integration
<p>Production information asymmetry: the buyer knows significantly more than the growers about the production technology.</p> <ol style="list-style-type: none"> 1. Quality improvements could increase profitability for growers but growers lack technical skills 2. Better timing of supply could raise profitability but the growers cannot easily alter the timing 3. Improved practices would be profitable but growers are not familiar with them 	<p>The crop requires advanced technology or is new to the grower</p> <p>Quality varies, affects demand, but is controllable</p> <p>Timing of supply impacts on demand but is controllable</p> <p>Improved practices exist and are known to the buyer</p>	<p>Management-providing contract that specifies practices to achieve quality, timing, and least-cost production. The company recoups the cost of extension services from proceeds of the marketed product</p>	<p>Production information is transferred within the firm through training and supervision</p>
<p>Marketing information asymmetry: the buyer knows significantly more about markets than the growers e.g. future, seasonal patterns and quality needs</p> <ol style="list-style-type: none"> 1. Quality improvements could increase profitability for growers but they are not aware of the premium on quality 2. Better timing of supply could increase profitability but the growers are not aware of timing requirements 3. Although greater production is profitable, the growers not sure of future prices 	<p>The crop has a specialized or distant market and demand is relatively new</p> <p>Complex quality requirements exist, especially for exports</p> <p>Perishable goods are supplied for processing or export</p> <p>The market is volatile or new; the grower does not trust the monopsonist</p>	<p>Market specification contract which allows greater exchange of information regarding demand, quality, timing and price</p>	<p>Market information is transferred within the integrated firm down to the field level</p>
<p>Imperfections exist in markets for credit, inputs and agricultural services. Transaction costs are high; growers are unsure of the profitability of the inputs and services; lenders are unsure of the reliability of the borrowers; policy-induced distortions reduce input and credit availability.</p> <ol style="list-style-type: none"> 1. Quality is suboptimal owing to 	<p>Use of large amounts of inputs, particularly specialized inputs, is profitable for the commodity</p> <p>Crop for which quality depends on inputs</p>	<p>Resource providing contract supplying inputs and credit. Repayment assured by contract to market produce</p>	<p>Credit and inputs are provided internally within the firm</p>

limited use of inputs and services 2. Timing of supply is inappropriate or uncoordinated without inputs and services 3. Output is suboptimal; excessive costs incurred due to limited use of inputs and services	Crop for which timing depends on inputs Crop for which input use reduces production costs		
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Source: Minot (1986)

The rationale of contract farming and choice of contracting partners under different conditions, commonly prevailing in restructured markets, is substantiated in another theoretical framework by Key and Runsten (1999) (Table 3).

Table 3: Influence of market failures on agribusinesses' organizational strategies

Market imperfections and transaction costs	Organizational strategy	Type of farmer likely to be contracted
Imperfect credit market resulting in high costs of credit to growers-agribusiness acts as lender via a resource providing contract	CF/VI	smallholders
Imperfect insurance market and high producer price risk-firm acts as an insurer via forward contracting	CF/VI	smallholders
Imperfect insurance market and high yield risk-firm unable to insure due to moral hazard problems	VI	large-scale farmers
Imperfect market for production information-technology, timing and quality	CF/VI	large-scale farmers, smallholders
High labor supervision costs due to crop requirements	CF/SM	smallholders
Imperfect market for specialized inputs (machinery, chemical inputs, seeds, etc)	CF/VI	large-scale farmers, smallholders
Missing markets for labor and land (labor-intensive crops)	CF/SM	smallholders
High search, screening, transfer, and other costs of contracting transactions	CF/SM	large-scale farmers
Organized farmers with market (bargaining) power (monopoly)	VI/SM	smallholders
High asset specificity for firm and low asset specificity for farmers- high bargaining costs for firm	VI/SM	large-scale farmers, smallholders
Farmers with few alternative income/production opportunities-low bargaining costs for firm	CF	smallholders
High contract enforcement costs (poorly functioning legal institutions)	VI/SM	smallholders, large-scale farmers

Legend: CF-contract farming, SM-spot market, VI-vertical integration.

Source: Key & Runsten (1999)

The incidences of different forms of market failure or magnitude of transaction costs determine the most likely strategy that can be employed by agribusinesses to confer coordination. Agribusinesses can contract smallholders or large-scale farmers, procure from spot markets or employ VI in order to mitigate market failure or high transaction costs. However, in practice an assortment of the afore-stated market conditions occur concurrently and this may compel agribusinesses to resort to composite strategies:

predominant market conditions, in relation to a firm's business objectives, determine the ultimate strategy (Key & Runsten, 1999).

Table 3 indicates that smallholders are highly likely to be contracted by agribusinesses which can extend production loans where there are not affordable alternatives for credit finance. Agribusinesses dealing in labor intensive crops, under conditions of thin labor markets, create conducive conditions for contracting with smallholders who often utilize family labor. The level of organization among farmers determines their ability to bargain and influence business terms. Smallholders, in South Africa, are often not well organized and present favorable contracting partners to agribusinesses as they can reach their profit goals due to relatively stronger bargaining positions. To this end, it would be plausible for agribusinesses to contract smallholders and this may help the farmers to access agricultural markets.

E. Benefits and drawbacks for small-scale farmers

1. Benefits for farmers

Contract farming can positively affect farmers both by improving farmers' capacity to take advantage of opportunities (pull factors) and by contributing to farmers' capacity to overcome constraints (push factors) (Glover, 1984 ; Glover et Kusterer, 1990 ; Little, 1994 ; Key et Runsten, 1999 ; Eaton et Shepherd, 2002 ; Singh, 2002 ; Masakure et Henson, 2005).

Benefits for farmers from contract farming can include access to inputs, credit and production services, opportunity to learn new skills and technology (among which improved seed varieties, specialized skills), opening up of new market out of reach of small farmers and secured access to distant and more rewarding markets as well as capacity to strive against price volatility and instability by acting as a risk management tool (See among others Eaton and Shepherd, 2001). Engaging into a contractual arrangement in some cases acts as a type of insurance for farmers and may lower production and marketing risks for farmers as already mentioned. When securing market access, contract farming can contribute to more stable income flows and thus to improved planning capacity for the farmer over the year. Contract farming has been seen as a way to favor diversification of farmers out of traditional crops into high value crops and thus to provide farmers with higher potential for income generation. Selling under contract to supermarkets or big agro-processing firms may also facilitate farmers' access to credit. The supermarket chains can provide evidence to banks of the existence of a contract or serve as a collateral substitute for producer.

Studies conducted by da Silva (2005), Natawidjaja *et al.* (2007) and Reardon *et al.* (2010) indicate that contracted farmers access better technical and extension services. Various studies also provide evidence that contracting can improve smallholder farmers' incomes (see among others Fafchamps and Minten (1998); Maluccio and Haddard (2000); da Silva (2005); Bellemare (2010) and Reardon *et al.* (2010)). Minten *et al.* (2006) indicate that in Madagascar most high-standard fresh fruit and vegetable production is produced by small farmers on a contract-basis with the agro industry which provides the supply of inputs, credit

and extension services. They show that this fresh fruit and vegetable contract-based export production has important positive effects on farmers' productivity and income in Madagascar. At a larger scale, contract farming can also impact employment, infrastructure and local markets development.

Furthermore, in a context of increasing importance of both public and private standards in agricultural market transactions, contract farming that includes management specification and may entail technical advice can play a significant role in small-scale farmers' capacity to adapt to new and increasing quality demands (Maertens and Swinnen 2009; Minten, Randrianarison et al. 2009). The inclusion of standard based specification in the contract and in the relationship between the farmers and the buyer may act as a learning device for smallholder farmers on market requirements (Fulponi, 2006; Unnevehr and Jensen, 1996). Contract farming may thus help decreasing small-scale farmers' barriers to entry.

2. Disadvantages for farmers

Although contract farming can have notable advantages to both farmers and contracting firms, a significant number of drawbacks have also been pointed out. Unequal relationships have been pointed out as a significant limitation for contract farming to benefit farmers. The lack of exit options for producers can contribute to this dissymmetry. In some cases, contract farming has been analyzed as an institutional arrangement in which companies acquire temporal rights over produce and labor, that is an arrangement that leaves the farmer with little control over land and labor. Contract farming has been considered in some cases as a disguised salaried relationship. In this regard, Clapp (1994) views contract farming as a way of securing farmers' land and labor leaving the farmer with imaginary control over them and in some cases equaled to propertied laborer. This concern is related to the dominant position of the contracting company in designing the contracts, especially where quality and grades are specified. This provides significant ground for disguised form of contractual hold up through the rejection of product delivered by the farmer under the pretext of non-conformity of quality regulations (da Silva 2005). Furthermore, the sophistication in the standards together with the prevalent lack of quality information create a significant impediment for farmers in meeting the required safety and quality standards. Other forms of contractual hold up over which farmers significantly lack control are related to the relations between delivery schedules and price setting or to complex price setting mechanisms that farmers do not understand. In the case of sugarcane contracting, delays in delivery will mean that farmers will be paid less since sugarcane decreases sucrose content once harvested. This dominant position of companies is to be related to the lack of public framework for addressing issues of contract enforcement and information asymmetry and to the lack of capacity from farmers' side.

Technological control by the firms may also play a role in increasing the dissymmetry between farmers and companies in contractual relationships. Although farmers may gain from technological innovations, technical control can also be used by firms as a conduit to

shift market pressures to producers who lack expertise to understand what some technologies entail and to comprehend their consequences. An illustration of this is the use of feed formulae that delays the growth of animals consequently resulting in less being paid to the farmers (da Silva, 2005). It is difficult for the farmers to test what ingredients are in the feeds. This again is to be related to missing public framework that could help guarding against such eventualities.

Contracting may leave farmers with very little flexibility in enterprise choice and participation in other alternative markets especially when specific assets are involved in the contract specification. In cases of perennial crops such as coffee, citrus and tea, land is locked away from other profitable enterprise and switching off costs are particularly high for both trading partners. In order to reduce the risk of non-compliance most farmers may be forced to invest in certain level of assets sometimes under credit or loan arrangements. Da Silva (2005) also points out the risk of farm land degradation as a consequence of monoculture that can be a consequence of contractual arrangements and farmers' investment and is likely not to be accounted for in the arrangement. Farmers, when engaged in new crops production, are particularly vulnerable to the non respect of companies' commitment that can result from inefficient management, corruption or when companies take advantage of a monopoly position (Eaton and Shepherd, 2001). The lack of public framework on contracting, especially in developing countries, expose farmers to higher risk of losing assets when contract fails.

It is important to point out that at territorial level, significant differences between contracted and non contracted farmers can create social tensions. Even in cases where contracted farmers benefit from it, actors that are not participating from contract farming may face problems arising from increase in land value or increased prices locally for inputs or food in particular.

F. Requirements for entering contractual relations and large scale versus small-scale farmers

Contractual arrangements with small-scale farmers are the exception rather than the rule. As pointed out in the literature, contract farming is more likely to develop with large suppliers who can ensure high volumes, consistent quality and can do so in the long run to minimize risks of supply failure and transport and monitoring costs (See in particular Coulter et al., 1999). This especially holds for the new dominant market players, the large retail and processing companies that have been key players in the restructuring of markets (Louw et al., 2007). More generally, contracting with medium to large scale farmers entail lower transaction costs with regard to first to procurement but also input provision, credit, technical assistance in cases where these are included in the arrangements. Furthermore, large-scale farmers are less sensitive to production risks, they can benefit from economies of scale and are more likely to produce consistent homogenous produce of higher quality than smallholders. They generally have better capacity to comply with increasing safety and

quality requirements. Indeed, the dispersion of the smallholder farms, the low volume of inputs and outputs traded through them hinder the development of quality assurance and traceability. This results in the likely exclusion of the smallest farmers from contract farming.

Studies carried out in Indonesia by Natawidjaja *et al.* (2007) showed that ownership of non-land asset such as irrigation equipment are sources of pre-selection bias when agribusiness companies are engaging into contractual arrangements with farmers. Goldsmith (1985) highlights the fact that many contracting schemes are developed in high potential areas with fertile soil and access to irrigation and transport. Reardon *et al.* (2010) also provide evidence that access to specific assets such as irrigation equipment and specialized horticultural knowledge enables farmers to be contracted. Many studies also indicate that smallholders are excluded because of growing standards (Key and Runsten, 1999; Reardon and Berdegue, 2002; Weatherspoon and Reardon 2003 among others). According to Baumann (2000) who conducted a wide literature review on contract farming schemes, contract farming can include smallholders. But this author recognized that this is not an option for the poorest but rather for the middle peasantry. Indeed, Baumann (2000) and the World Bank (2007) point out that, besides farm size, a legal title over land; good health, access to physical, human and social assets (education, irrigation, transport, roads, a proven ability to hire labor or enough family labor) and physical assets (wells, cold chains, greenhouses, good quality irrigation water, vehicles and packing sheds) are often required for smallholders to enter in contract farming. Small farmers most prone to be involved in a contract are those who have some non-agricultural income alternatives allowing them to bear the risk of signing a contract.

Companies may however have to deal with smallholders for different reasons that range from positive discrimination or empowerment as part of public policies, local agricultural context characterized by the large dominance of small-scale farmers or them having competitive advantage (labor intensity in particular). Companies may also prefer to deal with small-scale farmers with low market alternative than with a few large-scale farmers that have significantly more scope for selling their product and may thus be less reliable being more likely to default in this regard.

G. Determinants of contract farming and contract farming efficiency/ sustainability

There are a number of factors that have been cited in the literature that influence the success of contract farming, which include the issue of collective action, contract enforcement, household dynamics and external activities, niche markets and property rights regimes.

1. Contract enforcement and the role of the public sector

The negotiating power of producers is strongly affected by their reliance or dependence on contract farming, which varies depending on a number of factors such as the level of investment in specific assets involved in the contractual relations as already mentioned, farmers' control over land and irrigation, the potential to diversify the cropping systems, alternative employment opportunities and the level of competitions between companies. Gender issues are also a question for consideration in some cases. In a study done in South Africa by Porter and Philips-Howard (1997), it was found out that man had control over the payments from contract although they had not been involved in the farming activities. Adequate rights for both men and women should be catered for in the designing of a contract. Furthermore, legal enforcement of contracts is problematic in most poor economies due to weak states and poor legal and judicial systems. Many contractual agreements are in fact relational contracts that are usually not legally enforceable and rely on social relations between the contracting parties (Schwartz, 2003). Vermeulen et Cotula (2010) propose a number of criteria to assess farmers' positions and capacity to benefit from contractual arrangements? who possess the key assets (land and post harvesting capacity) ? Who make the decisions? How are the risks and the gains shared?

It has been widely argued in the literature that the state can play a role in supporting the development of contract farming as a tool for better smallholder farmers' access. The state can support farmers' negotiating capacity and collective action. It can develop laws against excessive market power and provide for mechanisms to enhance farmers' capacity to put claims and to ensure proper conflict resolution (See Glover, 1990; Glover et Kusterer 1990 ; Porter et Phillips-Howard, 1997 ; Eaton et Shepherd, 2001 ; Simmons, 2002 ; Swinnen et Maertens, 2007). Without an institutional means of venting problems, smallholder farmers can choose to communicate with management through subtle forms of protests (Little, 1994). Subtle forms of protests include among others elements such as paying less attention to contracted crop or leaving pest and diseases to invade the contracted crop. Contract enforcement also has to be operationally and financially feasible (da Silva, 2005). Government can play a crucial role in developing legislation and creating a conducive environment for contract farming. Where public frameworks for contract enforcement are missing, some agribusiness companies have put in place systems to ensure contract compliance through employing full-time monitoring agents. However it is also important to point out that some contracts are self enforcing and can be performed even in the absence

of legal sanctions for contractual breach when the gains from breaching the contract are outweighed by the expected profit stream within the contract (Schwartz, 2003).

2. Collective action dimension and social capital

Coulter et al. (1997) argue the case for combining farmer cooperation or collective action with contract farming. Farmers can group themselves and form commodity associations, which can give them more bargaining power. Indeed, effective producer organization could support contracting schemes within high-value supply chains, providing for lower transaction costs and lower risks of farmers contract default (peer pressure, joint collateral, etc.) (Coulter et al., 1997; Biénabe and Sautier, 2005). Produce quality and quantity conformity can be achieved through peer pressure. This can significantly reduce the need of a third part enforcement agent. Through this, monitoring costs are drastically reduced. Producer organizations can assume several functions in the commodity chain, such as collection, grading, post-harvest and storage. They have a large scope of activities and functions (Bosc et al., 2003, Perret and Mercoiret, 2003). They include a large range of organisations, such as self-help groups, farmers associations, cooperative-type organisations (Bosc et al., 2003, Perret and mercoiret, 2003). In South Africa where there are the communal property rights and some land reform programmes such as the equity share schemes, they provide an opportunity for farmers to come together and pool resources for improved welfare.

Through the services they provide to their members, they have a role of intermediary with the other stakeholders and rural development actors. When contracts are negotiated with producer organizations, farmers gain from additional bargaining power that membership of producer organizations bestows through bulk purchase or selling. By organizing and rationalizing the transactions, they may play an important role in reducing transaction costs. Both parties (agribusiness and farmers) can benefit from lower transaction costs than would be the case if a separate contract was negotiated with each farmer. Through collective action, farmers can achieve economies of scale in buying of inputs and selling their products. Indeed, collective action enables the pooling of different resources such as credit, labor force, transportation means for selling products or buying inputs, information (Moustier, 1998).

Nevertheless, creation and maintenance of an organization is costly. Its financing and maintenance ask for specific funding (Perret and Mercoiret, 2003). Even if the advantage of collective action for small farmers is high, voluntary cooperation faces several type of generic problems such as “free rider” problems (Olson, 1965; Jaffee and Morton, 1995) asking for the creation of incentive system (positive or negative) (Olson, 1965). The problem of scale is also to be pointed out. Indeed, small groups have advantages over larger ones since their members are likely to receive a higher share of total benefits and thus, may more easily promote member commitment and knowledge of each other. Moreover, mutual trust is easily maintained and transaction costs are lower. Nevertheless, small scope may limit potential economy of scale, potential for insurance and credit supply (limited mobilization of capital), and do not allow for specialized management functions. On the other hand, larger

groups enable economies of scale with less investment per member and provide greater scope for pooling and spreading risks. Yet as group size increases, so will transactions cost. And larger groups are likely to encompass more divergent interests. Asymmetric information and power may prevail inside large groups (Jaffee and Morton, 1995).

Relationship and power are central when addressing farmers (and their organization) and other stakeholder relationships institutionalized through contractual arrangement. Contracting can best survive where there is strong social capital, which includes trust, relations, cooperation and networks of solidarity (Kirsten and Sartorius, 2007; Porter and Philip- Howards 1997). Networking norms reduce opportunistic behavior, transaction costs and increases trustworthiness. The importance of social capital can be linked to scarcity of information in prevalence of missing markets and dysfunctional governments. Some empirical studies showed that social capital has benefits such as increased efficiency that is larger sales and gross margins in Madagascar (Fafchamps and Minten 1998) ; increased income through group membership in South Africa (Maluccio, and Haddad, 2000) and increased productivity capacity and market accessibility of small scale farmers in Kenya (Bradbury, 2006). However on the other hand, relations based on family and friendship raise the incidence of contract non-performance, non-confrontational methods of dispute resolution and often end up in face-saving compromises.

3. External intervention to foster contract farming

To build efficiently vertical coordination in a sustainable way entails a complex and long process, as it requires effective incentive structures that reduces transaction risks and induces compliance, and generally implies the learning of new relationships: since actors' decisions are based on a diversity of convergent or divergent criteria according to their own interest, it is important to establish a mediation process with the objective of promoting a concerted identification and diagnosis of constraints, as well as to foster information-sharing. This mediation requires specific tools such as, for example, multi criteria analysis process, capitalizing on 'good practice' governance mechanisms and participative research development, information dissemination, actors' capacities building in the field of policy analysis.

CHAPITRE 3 - ASSESSING CONTRACTS FROM A SMALLHOLDER PERSPECTIVE - RESEARCH APPROACH AND METHODOLOGY

In accordance to the research question and objectives presented in chapter 1, the study will develop three major research topics:

- Topic 1 - The characterization of small-scale contract farmers in terms of farming and marketing practices including product specificities; production system and system of activities; assets including land size, equipment, title deeds; and an assessment of their livelihoods conditions.
- Topic 2 - In depth assessment of different types and forms of contracts in which these smallholders are engaged (i.e. specificity of contracts, opportunities, constraints and major obstacles)
- Topic 3 - Analysis of the situations in which small-scale contract farmers operate, focusing on two levels: i) analysis at the community level to comprehend local agricultural product market dynamics, ii) local dynamics associated with national land and agricultural policies.

To do so, the project focused on empirical research regarding different contractual agreements identified in South Africa. A pluri-disciplinary approach was developed to deal with the different dimensions of the project: The contractual aspects are analyzed based on institutional economics; Smallholders' farming conditions will be assessed through an agronomic and socio-economic approach; and policy analysis will enable the reflection and development of recommendations on how to better integrate smallholders in the global restructuring of agriculture.

A. A three-tier approach: Combining a territorial, an organizational and value-chain approaches

Besides an extensive academic literature review addressing related issues and the use of statistical and secondary data, particularly on contracting schemes in South Africa (and in other developing countries where relevant (in particular, the extensive works realized within the *Regoverning Markets* project (www.regoverningmarkets.org), which is presented in Chapter 1, as well as the analysis of relevant policy documents (on land reform, Black Economic Empowerment, etc.), the project includes extensive primary data collection in three different sites, according to three different approaches.

Three different approaches are applied in the three different areas:

- **A territorial approach:** Within a precise geographical area where relationships between basic farm production units impose a particular form of land use, where they are inscribed into the landscape to the point they can be “read” and where they

constitute a historical, coherent, socially determined and sustainable system (Cochet, 2011), all agribusinesses and a selection of farmers (including contract farmers and focusing on smallholder) are identified and analyzed. Such an approach allows to: (i) have an exhaustive view of the significance of contract farming in the region; (ii) assess a diversity of types of contracts in different value-chains. Subsequently, it allows analyzing the factors having led to certain type of contract for specific products.

- **An organizational approach:** A specific community of farmers (grouped in a specific area and into a producers' organization) knowing to be engaged in contract farming is identified and analyzed. Although the diversity of contracts remains limited in this case, it allows an in-depth analysis of the contract (its establishment, negotiation, implementation) and of the trajectories of the farmers (how did contract farming transform the farming structures, etc.).
- **A value-chain approach:** For one specific value-chain, the different contracts and their implementation modalities are analyzed. Such an approach enables to analyze the contract variations and thus, subsequently, analyze the factors of contract diversification within one sector/value-chain.

The combination of different approaches allows having diverse and strongly complementary perspectives regarding the different contracts. For example, beside others, the territorial one allows to link contract characteristics and factors to produce characteristics, the case-study one will give more specification on farmers' trajectories, whereas the value-chain one will emphasize organizational and institutional aspects within a specific sub-sector. The complementarity of the approaches and of their results leads to a more complete set of diverse results.

Effective implementation of the project was realized accordingly:

- *The territorial approach:* Implemented in a small region of the Greater Tzaneen Municipality, Limpopo Province, and focused on all contracts identified in the region;
- *The organizational approach:* the Winterveld United Farmers' Association, based in the Soshanguwe peri-urban area, Gauteng Province. Besides some minor additional contracts for other produces, the farmers were mainly engaged in citrus contracts.
- *The value-chain approach:* milk value-chain in the Western Cape Province.

In each of the sites/approaches, the three research topics – linked to three types of research methods (linked to the three topics developed in the research objectives section) - are applied. As such:

- Topic 1 was developed through a livelihood survey assessing the overall farming structure and, in particular, how contracts affected farmers' overall socio-economic situation;

- Topic 2 assessed the different types of contracts through a farmers' questionnaire targeting small-scale contract farmers and addressing agronomic and socio-economic farmers' characteristics, contractual agreement specifications and their implications as well as farmer level implications of the identified local dynamic;
- Topic 3, focusing on the broader analysis of the farmers' situations and dynamics at village level (agricultural product markets, land, etc.), was addressed through interviews with key resource persons and focus groups. In addition, surveys were also conducted with identified contractors (supermarkets or processors).

The three approaches and research methods combined in are detailed in Table 4.

Table 4: The applied research methodology

Approach	Site	Sub-sector/Value-chain	Research methods		
			Topic 1 - Characterization of small-scale contract farmers	Topic 2 - In-depth assessment of different types of contracts	Topic 3 - Broader analysis of the situations in which small-scale contract farmers operate
Territorial approach	Tzaneen/N'wamitwa, Limpopo Province	All	- Livelihoods survey - Agrarian diagnostic	- Contract analysis - Farmers' trajectories	- Policy analysis - Institutional analysis
Organizational approach	Winterveld, Gauteng Province	Mainly citrus -			
Value-chain approach	Western Cape Province	Dairy			

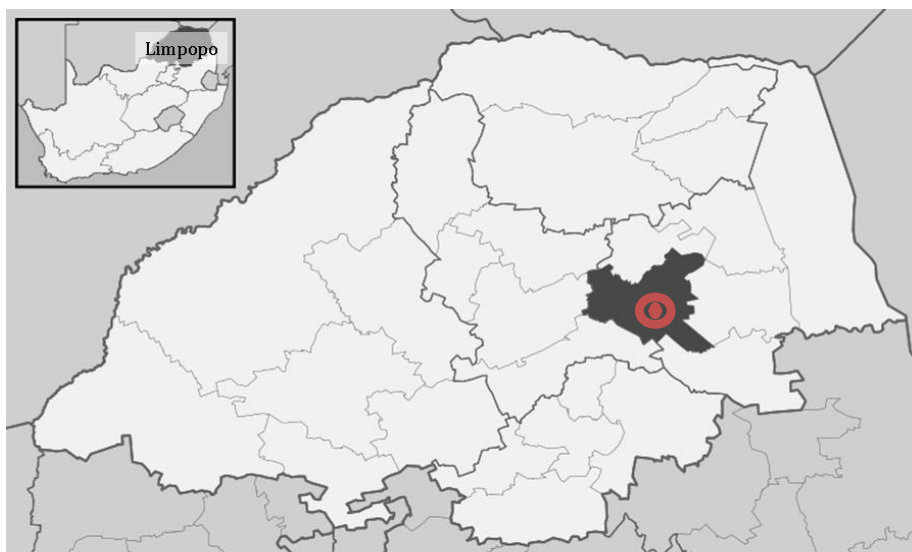
Sources: authors

The data is broad and is in all cases representative of the diversity of farming systems and contracts in the study area. Firstly, it combines quantitative and qualitative data. Secondly, as we will show in the analysis, it covers a whole range of farming systems ranging from less developed and subsistence small-scale systems to more advanced large-scale and commercial ventures. Thirdly, it includes farmers with and without contracts and assesses the type of agreements they are involved with. Finally, the dataset enables comparison across farm households with different land tenure regimes and different levels of governmental support, including beneficiaries from land reform programmes.

1. The Territorial approach: the case of the Greater Tzaneen's farmers

The first study region, the Nwa'Mitwa area near Tzaneen, is located in the Greater Tzaneen local Municipality, which is situated in the Mopani District Municipality in the Limpopo Province (Map 1). The study region includes the settlements of Mandlakhazi, Mbekwani, Nwa'Mitwa, Nwadjaheni and Babanana as well as the private farms surrounding the community (Jaffray, Welverwacht, Taganashoek, La Dauphine, Duplex and Uitzoek). It is situated against the slope of the Drakensberg Mountains, at about 100 km North-East from the city of Tzaneen (380,000 dwellers), on the hillsides of the Nwanedzi River, an affluent of the Great Letaba and the Olifants Rivers.

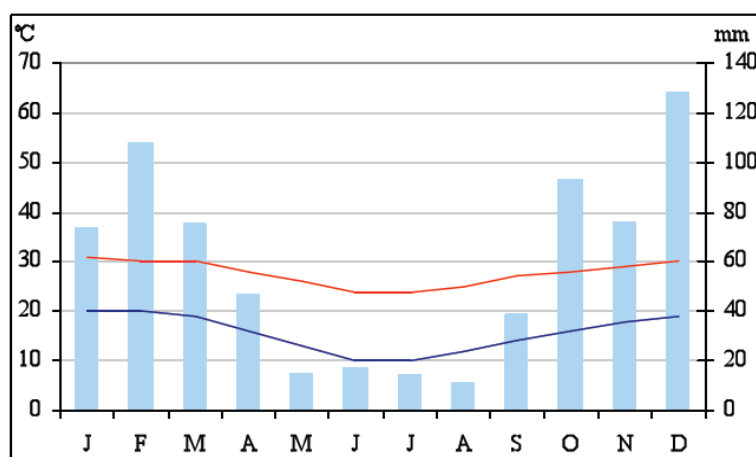
Map 1: localization of the study area in the Grater Tzaneen Municipality, Limpopo Province



Sources: authors

The area is characterized by a typical *lowveld* climate with relatively good agro-climatic conditions, including a tropical-semi-arid climate (average temperature of 25°C, with annual rainfall of between 500 and 700 mm) and relatively homogeneous soils (alluvial and sandy on the top and flat areas, clay soils in the lower lying areas).

Figure 2: Climatic conditions of Tzaneen area



Sources: Limpopo Department of Agriculture, 2008

Despite a distinct dry season, crop production is possible throughout the year under irrigation. As a result, agriculture is well developed and the most important economic activity in the Greater Tzaneen Municipality. Thus, the area owes its accolade of “Tropical Paradise” to its climate and the proven track-record of consistent production of high quality sub-tropical fruits. Annual production of sub-tropical fruits and nuts is estimated at more than 223 000 tons yearly. The output of the local Municipality alone, according to the estimates of the Limpopo Department of Agriculture, constitutes more than 60 % of the national total for crops like mango and avocado, and approximately 20 % for crops like citrus.

The Southern part of the study region is located on communal lands that were part of the Gazankulu Homeland. Agriculture is representative of the overall prevailing situation in the former Homelands, consisting of small plots with insecure land tenure, cropping and livestock systems based on traditional practices, farming activities dedicated to family consumption, high demographic and land pressure etc. Most households face a daily struggle with poverty, particularly due to the high average age of the population as well as general under- and- unemployment. The Northern part consists of commercial farms. This sub-region is subject to land claims and some governmental projects have been implemented. The proximity to commercial farms both located in the study region and in the Great Letaba River Valley, one of the leading regions for fruit and vegetable production, has enhanced the development of agricultural wage labor opportunities and the presence of agricultural contracts.

The study region was identified for the implementation of the geographic approach for three main reasons:

- Tzaneen is a major agricultural hub of the province: the area experiences a subtropical climate with ideal conditions for different farming activities.
- The presence of significant agrarian structures diversity. Besides large-scale commercial farming, the area includes former homelands (Gazankulu mostly) and is also characterized by land reform projects.
- Important for the study was the presence of contract farming and contractual arrangements with smallholders.

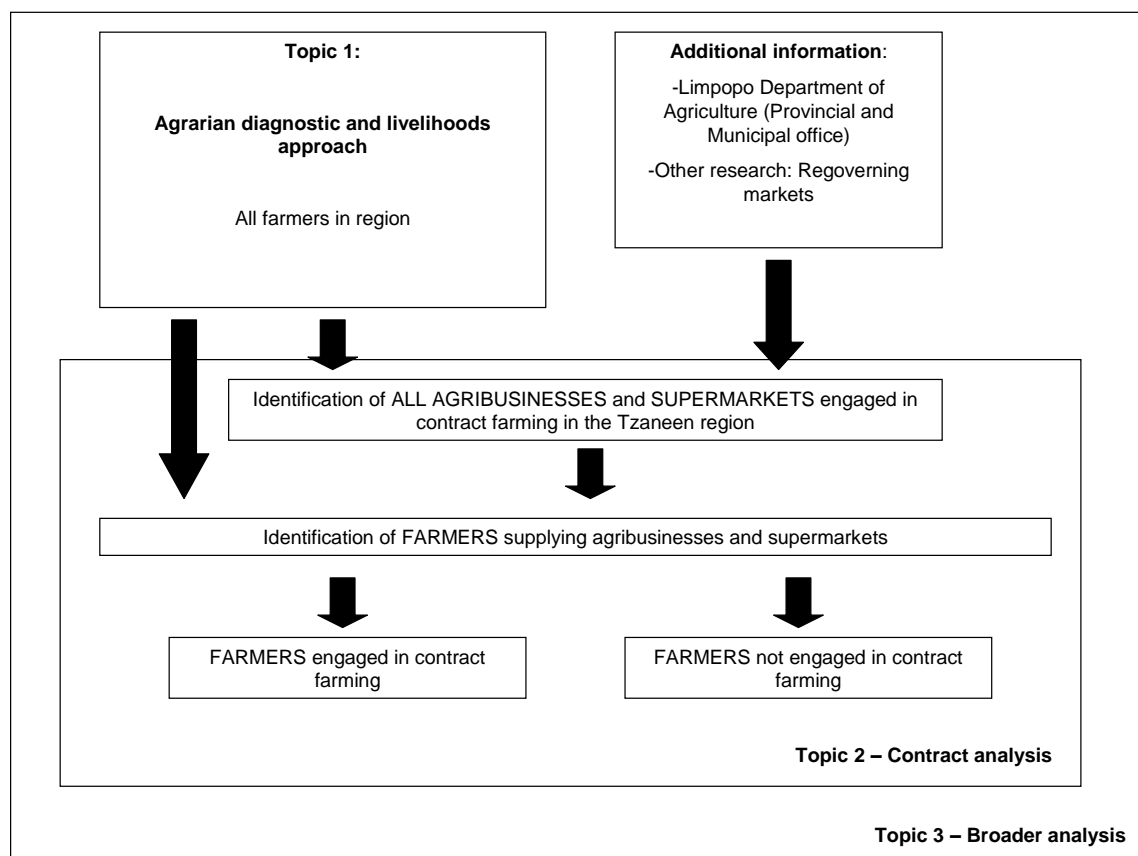
In the territorial approach, the three research topics and methods are implemented in sequence (Figure 3):

Firstly, the implementation of topic 1 leads to a regional study of agrarian systems providing an understanding of the diversity and the complexity of agricultural practices and structures. On one hand, this helps to provide a better understanding of the complexity of the present dynamics, the socio-economic structures and the modes of exploitation. On the other hand, it allowed identifying the agribusinesses and the farmers who engage in contracts. The latter was the basis to identify the contracts to be analyzed in the framework of topic 2.

Secondly, topic 2 is implemented in order to analyze the different types of contracts. The combination of the results of topic 2 with those of the farmers' trajectories detailed in topic 1 leads to an in-depth and empirically-based assessment of the contracts' impacts, advantages and disadvantages.

Thirdly, topic 3 will complement the previous ones with a broader policy analysis, leading to policy recommendations.

Figure 3: framework of the territorial approach implemented in the Greater Tzaneen Municipality area



Sources: authors

* Sample and surveys

The population of the study area is estimated at around 16 000 households (Municipal Demarcation Board, 2006) of which, according to our findings, i) about 2000 are involved in agriculture, including livestock and self-consumed cropping activities in gardens and ii) 82 are private land owners. However, a probability sample was not possible because exact lists of community members were unavailable. It was consequently decided to conduct:

- Topic 1: (a) 110 questionnaires among a random group of respondents geographically spread over the area, which allowed, considering the available time and resources, for capturing the existing diversity and to provide the necessary information for the establishment of a typology. The survey was random but the number of commercial and contract farmers were purposefully higher. Four cases were deleted from the analysis due to missing data, resulting in a data set of 106 valid cases; (b) 40 complementary interviews among selected households identified during the first 110 interviews in order to better understand their specific trajectories; (c) 239 additional short questionnaires to check how representative the results are in relation to the size of the population in the region.
- Topic 2: 36 questionnaires focusing on contracts. The latter were realized among farmers from a purposive sample: 28 farmers with 30 contracts identified through

the implementation of topic 1, 6 farmers procuring agribusinesses but without contracts and 2 selling on spot markets.

- Topic 3: This information was complemented by findings from previous research (Regoverning markets programme), as well as information obtained from the Limpopo department of agriculture (i.e., provincial and municipal offices) and the researcher's preliminary visits, established the presence of several agribusinesses (agro-processors, commodity packaging and export companies, abattoirs, cattle auctioneer, nursery propagators and farm management concerns) and supermarkets in Tzaneen.

Table 5: List of agribusinesses identified in the study region

Agribusiness	Farmers contracted in Limpopo	Farmers interviewed
Smallholders with contracts		
The peppadew processor	80	8**
The chicken processor Farms	15	9*
A supermakets	?	4*
The citrus exporter/The tree and seedling company	?	3**
Tiger Brands, Checkers	?	2
Capespan	?	1
APOL	250	3
Procurement from smallholders without contracts		
APOL	250	2
Spar		1
Fruit'n Veg		3
Spot market		
No agribusiness – spot market		2
Total		
Total		28 farmers with 30 contracts 6 farmers with no contracts 2 spot markets

** 1 farmer had a contract with A supermakets and one with The chicken processor*

*** 1 farmer had a contract with The peppadew processor and one with The citrus exporter.*

The data obtained is broad and is in all cases representative of the diversity of farming systems and contracts in the study area. Firstly, it combines quantitative and qualitative data. Secondly, as we will show in the analysis, it covers a whole range of farming systems ranging from less developed and subsistence small-scale systems to more advanced large-scale and commercial ventures. Thirdly, it includes farmers with and without contracts and assesses the type of agreements they are involved with. Finally, the dataset enables comparison across farm households with different land tenure regimes and different levels of governmental support, including beneficiaries from land reform programmes.

2. The Organizational approach: the case of the Winterveld United Farmers Association

The case study occurs in the Winterveld region, a subdivision of the City of Tshwane Metropolitan Municipality, located in the Gauteng Province (Map 2). Winterveld refers to an extensive disperse peri-urban settlement of approximately 9 500 hectares. It is situated against the slope of the Magaliesberg, approximately 50 km North-West of Pretoria, near the urban townships of Mabopane, Ga-Rankuwa and Soshanguve. Formerly falling under the homeland of Bophuthatswana till 1994, the administration of Winterveld moved from Pretoria to the North West Provincial government in 1997. In 2000, when the City of Tshwane metropolitan area was formed, the Winterveld Transitional Representative Council was one of the local authorities amalgamated into the new metropolitan municipality. The region is about eighteen km long and about nine km large at its widest point (see Map 2).

Map 2: Localization of the Winterveld, Gauteng Province



Sources: authors

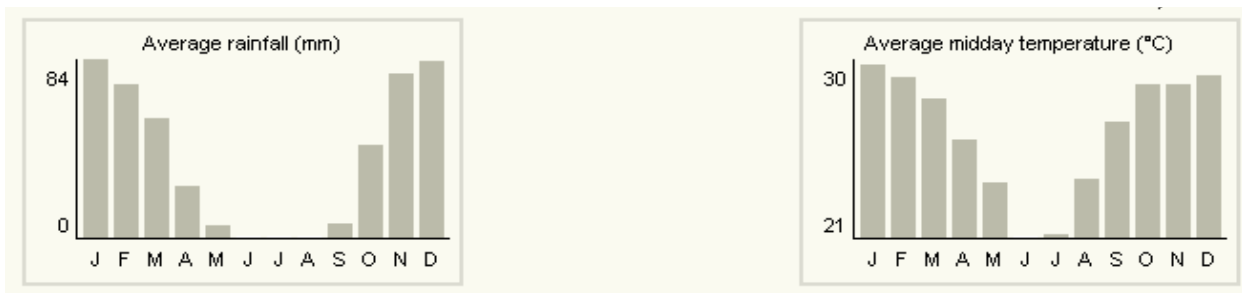
The Winterveld area is a unique case as it was subdivided into 5 to 10 ha plots, sold to black farmers on freehold basis in the 1940s. In 2002, a small group of plot owners got together to engage in the Winterveld United Farmers Association (WUFA), a membership-based producers' organization that currently counts 145 members. These farmers are engaged in a contract with a local citrus processor since 2007, which forms the basis of the Winterveldt Citrus Project around which this case-study centered (Box 1 and map 2).

Box 1 Winterveldt Citrus Project

The Winterveld area in Gauteng is unique in that it was subdivided into plots of between 5 and 10 hectares and sold to black farmers on freehold basis as long ago as the 1940s. In 2002, a small group of these plot owners got together to form the Winterveld Citrus Project with the Winterveld United Farmers' Association, a membership-based association which now has 145 members. Seeing in the Winterveld Citrus Project an agricultural programme with the potential to create jobs, ensure food security and generate income for members and other beneficiaries, and employment opportunities in that poor peri-urban settlement, the National Development Agency (NDA) board approved a grant of R1 509 000 in March 2007. The funding was used to buy farm equipment and 30 000 young orange trees. On the infrastructure side, a borehole irrigation system was installed on the anchor farm and a packing house constructed where the oranges can be cleaned, waxed, sorted and packed. The harvesting, planting and tending of the citrus trees are completely in the hands of the farmers. In line with its partnership ethos, the NDA has liaised with a number of other key players in its support for the Winterveld Citrus Project. A contribution from the City of Tshwane helped towards purchasing the packing house, and the city also provided administration infrastructure. Pick n Pay contributed funds and is currently purchasing the project's oranges, as well as a private juice processor of the area. The North West Department of Agriculture, the Citrus Research International body, and the Kellogg Foundation have all contributed funds, technical support or advice.

Winterveld is characterized by a typical *highveld* climate. Located in the areas to the north of the Magaliesberg, Winterveld normally receives rainfall ranging between 550 mm and 660 mm per year, with most rainfall occurring during summer (October to April). The area receives the lowest rainfall in June and the highest in January. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures for Winterveld range from 21°C in June to 30°C in January. The region is the coldest during July when the mercury drops to 2°C on average during the night.

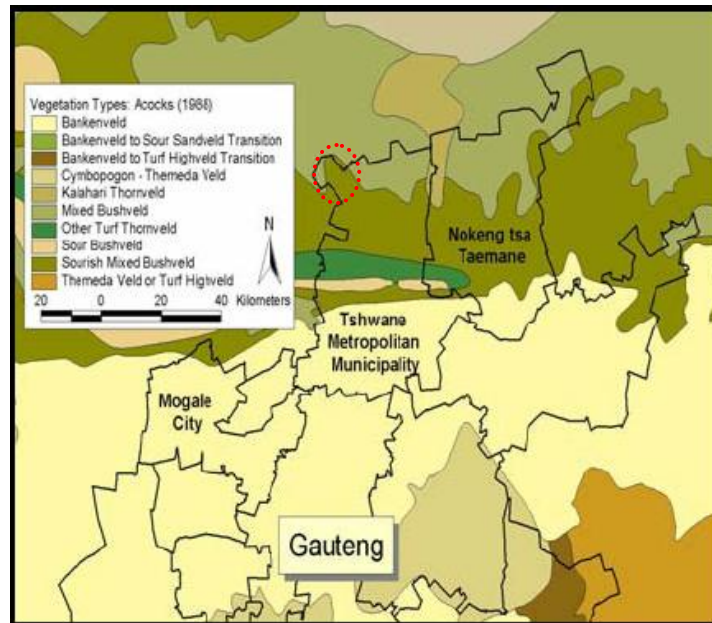
Figure 4: Climatic conditions of Winterveld



Sources: http://www.saexplorer.co.za/south-africa/climate/winterveld_climate.asp

The region is ideal for a savanna mixed *bushveld* vegetation (see map 3). According to the Acocks classification (1988) -which is based on the agricultural potential of vegetation types- Winterveld's vegetation varies from a short dense mixed *bushveld* to an open *tree savanna*¹ which provides suitable grazing for livestock during winter when the sour grass becomes unpalatable for livestock with lower nutrition value. Indeed, at the beginning of the XXth Century, Winterveld had served as grazing land for cattle during the dry winter season – hence the name of *Winterveld* which means “winter grazing”.

Map 3: Vegetation types in the Tshwane Metropolitan Municipality area (Acocks, 1988)



Sources: City of Tshwane 2005 *Tshwane Open Space Framework, vol1*

The Winterveld region has experienced a rapid urban growth over the last decades. Settlements like Mapobane, Klippan, Soshanguve and Winterveld are the most important urban developments in this area. Winterveld is currently divided into a Northern half “proclaimed” rural area, and a Southern half urban area (Klippan). Population densities are thus higher in the Southern part, in particular in the very Southern portion (Vilakazi).

The population growth of the region can be traced back to the historical and political history over the last fifty years. The influx of people from rural areas toward cities has created significant informal settlements all around the main towns. Moreover, Winterveld is characterized by a well developed commuting system, where people travel daily/weekly for work between Pretoria and their home.

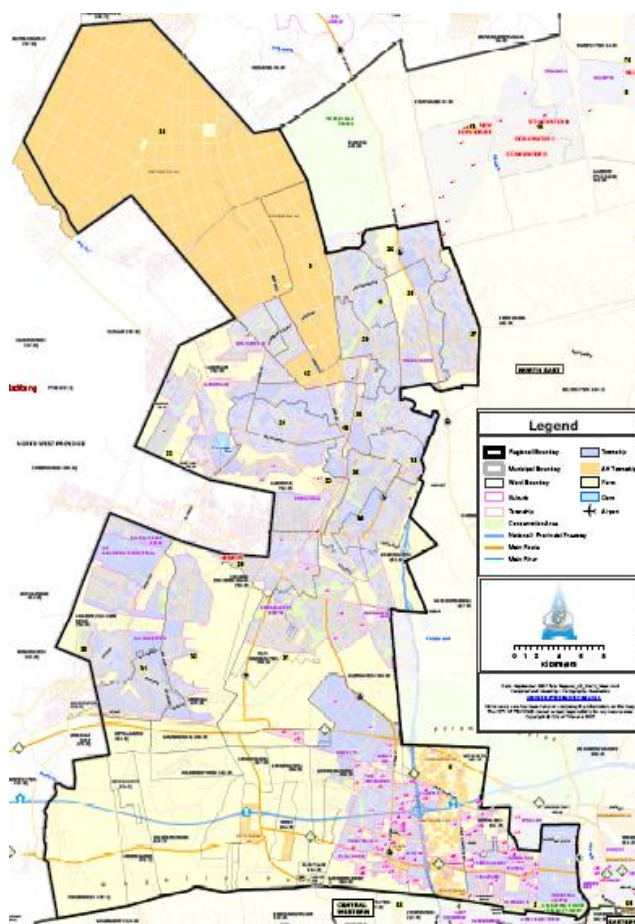
¹ The structure of this vegetation type is primarily determined by fire and grazing. It is represented in a number of smaller provincial nature reserves some private game farms and conservation areas

Table 6: Estimation of the population in the North-West sub-region of the Tshwane Municipality

	2001 Census HHs	Persons in 2001 Census	Tshwane HHs survey 2008	Persons in 2008 Census
North West sub-region of the Tshwane Municipality	172 596	643 719	154 673	622 993
Winterveld (W9, 12, 22, and 24)	31 447	127 674	27 569	120 846

Sources: Tshwane Household Survey 2008

Map 4: details of the North-west sub-region of the Tshwane Municipality (Winterveld in orange).



Winterveld is largely a residential area, although it was originally intended for agricultural development. Consequently, land has progressively become under increasing pressure to be used for informal settlements, especially after 1994. Winterveld does not have an economic base on its own. The majority of dwellers is either unemployed, self-employed (a small share of them in agriculture) or living on social grants or work in the distant industrial center at Rosslyn or even Pretoria. While the level of unemployment at Municipality level is estimated at about 20%, the North Western sub-region where Winterveld is located has an unemployment rate estimated at about 44% (Tshwane HHs Survey 2008).

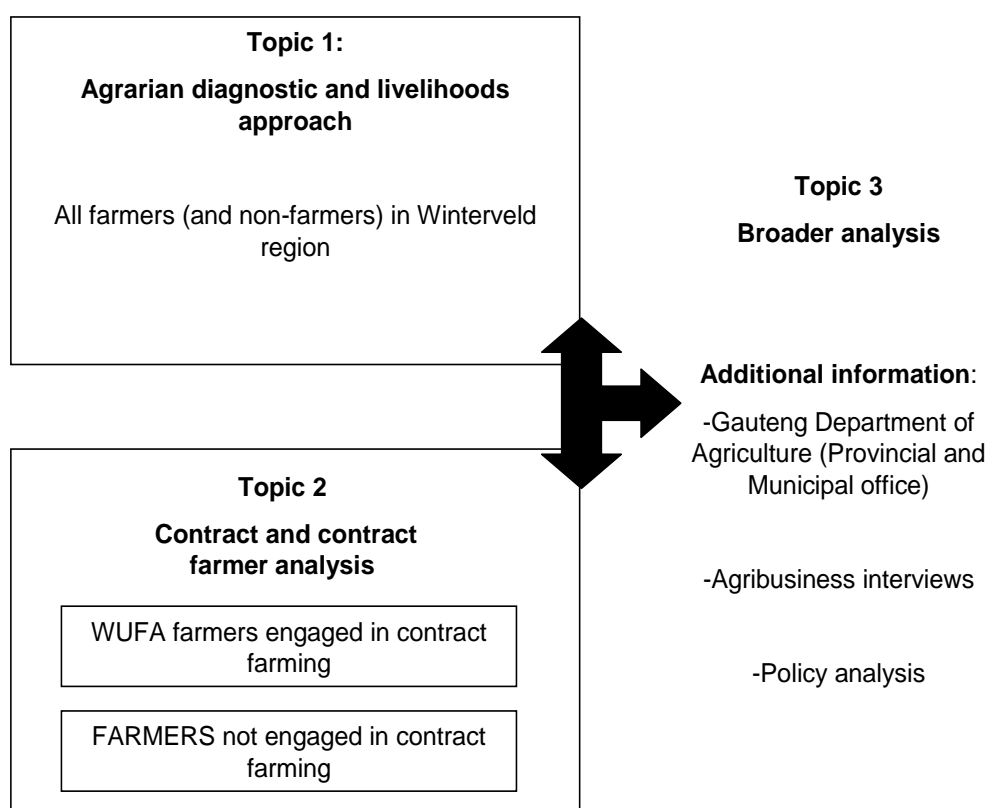
The case-study of the Winterveld farmers has been chosen for several reasons:

- Firstly, the particularity of the case, where not only incidences of smallholder with contractual arrangements occur, but where smallholders also became shareholders of the agribusiness. In addition, the Winterveld case is often presented as a success story with regard the integration of smallholders into the mainstream agricultural economy and markets.
- Secondly, the existence of organized farmers (WUFA). The impact of collective action and organized activities, only sporadic features in other regions, including in the Tzaneen case-study, is certainly an important factor to analyze.
- Finally, Winterveld is located some 40 kilometers north of Pretoria and represents a semi-urban area (in opposition to the more rural setting around Tzaneen). The proximity of Winterveld to the high density suburbs of Soshanguve and Mabopane represents a great potential for agricultural produce demand and possibility of contractual arrangements between farmers and agribusiness companies as well as hawkers and or vendors.

In the organizational approach, the three research topics and methods are implemented in parallel (Figure 5):

- Firstly, the implementation of topic 1 leads to a regional study of agrarian systems providing an understanding of the diversity and the complexity of agricultural practices and structures. On one hand, this helps to provide a better understanding of the complexity of the present dynamics, the socio-economic structures and the modes of exploitation. On the other hand, it allowed identifying the agribusinesses and the farmers who engage in contracts. The latter was the basis to identify the contracts to be analyzed in the framework of topic 2.
- Secondly, topic 2 is implemented in order to analyze the different types of contracts. The combination of the results of topic 2 with those of the farmers' trajectories detailed in topic 1 leads to an in-depth and empirically-based assessment of the contracts' impacts, advantages and disadvantages.
- Thirdly, topic 3 will complement the previous ones with a broader policy analysis, leading to policy recommendations.

Figure 5: The Organizational approach implementation process



Sources: authors

** Sample and surveys*

According to the Municipality of Tshwane, it is estimated that only 25% of the approximately 1660 Winterveld households, representing about 415 households, are involved in agriculture (Tshwane HHs Survey 2008). Of these households engaged in agriculture, 145 are members of the WUFA.

- Topic 1: In order to implement an agrarian diagnostic, to analyze the farmers' livelihoods, and to grab their diversity, 40 in depth interviews with farm households were realized, representing about 10% of Winterveld's total farm households' population. The latter were randomly selected from the agricultural household list related to the Tshwane Household Survey (Tshwane HHs Survey 2008).
- Topic 2 : Out of the 145 WUFA farmers, a sample size of 33 (22.8% of WUFA farmers ; 8% of Winterveld households engaged in agriculture) was interviewed. In addition, 17 farmers (4% of Winterveld households engaged in agriculture) without contract were also interviewed.
- Topic 3 : All the agribusinesses engaged with WUFA farmers were interviewed. In addition, i) the Gauteng and North-West Departments of Agriculture, including local government agricultural extension officers ; ii) the farmers organizations and

initiatives, etc. ; iii) finance houses, iv) experts in fruit and vegetable marketing and v) leading vegetable and fruit farmers in the region.

3. The value-chain approach: the case of the dairy producers in the Western Cape

The dairy sector in the Western Cape has been chosen for the implementation of the value-chain approach. The dairy sector is particularly interesting since:

- Most, if not all, dairy activities are exercised on a contractual basis. Dairies are indeed dependent on such instruments to assure the quality and traceability of this perishable produce. These conditions represent entry obstacles for smallholders to the dairy sector. The analyses of the smallholders engaged with these dairies will thus lead to specific information related to the contractual arrangements.
- The presence of land reform projects, particularly LRAD projects, engaged in the dairy sector. Their integration will accentuate certain factors related to land distribution and tenure, while enabling to evaluate the contribution of land reform to smallholder development and market integration.

The sequence of implementation of the three topics is again different in this value-chain approach:

- First, topic 3 is implemented in order to analyze how land reform and other policy measures have supported the settlement of smallholders in general, in the dairy sector in particular. The latter allowed thus to identify smallholders engaged in contractual arrangements with dairies.
- Second, topic 2 is implemented once the dairy smallholders are identified. As with the previous two approaches, this allows to analyze the contractual arrangements, their establishment, the advantages for the smallholders but also the challenges related to the contracts, in which the smallholders are engaged.
- Third, topic 3 then allows to analyze the implications of the contracts on the smallholders farming activities and livelihoods. Although the latter only concerns the contract farmers and does thus not allow to produce a broader agrarian diagnostic per se, it will however enable the analysis of the farmers trajectories and evolutions and, subsequently, the implications of contract farmer regarding the smallholders' development and market integration.

A series of seven small scale dairy farms throughout the Western Cape were identified and analyzed throughout. All of the farms resulted from the LRAD programme (Table 6).

Visited during a period of 6 months, structured interviews were conducted with the managers of the farms in order to determine i) their agricultural activities and farming systems, ii) organizational, administrative and managerial practices, iii) market integration

and their contractual arrangements, as well as common feelings and perceptions with regard iv) government assistance and land reform in particular.

Table 7: Description of sampled farms

Farm	Size (ha)	Pasture (ha)	Crops	Cows in milk	Breed
Jakkalskraal	248	116	None	183	Jersey
Kaapschon	863	229	14 ha Wine	120	Jersey
Klein Eikeboom	116	96	20 ha Wine	170	Jersey
Elim	23	23	None	44	Jersey
Kweekvlei	-	-	-	-	Jersey
Nooitgedacht	230	145	5 ha Wine	65	Jersey
Amaliensteyn	500	57	28 ha Fruit	95	Friesland

Sources: authors

B. A multi-disciplinary data analysis

The data obtained is broad and is in all cases representative of the diversity of farming systems, the contracts developed engaging smallholder farmers in the different study areas, and the policies affecting the latter. As such, this project allows analyses of the patterns of market restructuring and of its drivers in South Africa (macro, meso and micro level analysis). It also highlights the major determinants of exclusion for different types of farmers and gives insights on the implications of market restructuring trends on smallholders (through quantitative methods and econometric analysis). According to the three topics retained, qualitative and quantitative analyses are implemented.

a) Qualitative data analysis

Topic 1 - The characterization of small-scale contract farmers in terms of farming and marketing practices including product specificities; production system and system of activities; assets including land size, equipment, title deeds; and an assessment of their livelihoods conditions.

Two methodological qualitative approaches were used to analyze agriculture and rural livelihoods in the Greater Tzaneen area. We firstly implemented an agrarian systems diagnostic approach in order to characterize the agro-ecological, technical, historical and socioeconomic factors influencing the transformation of the rural environment (Cochet and Devienne, 2004; Dufumier, 1996, Cochet, 2011). We analyzed agricultural practices (combinations of crops and livestock and their productivity levels) which were subsequently linked to the asset endowment and households' development paths to establish a consistent typology. We secondly applied a livelihood approach to each identified type of household, aimed at understanding the combination of activities and income sources.

Topic 2 – Through an institutional analysis - In depth assessment of different types and forms of contracts in which these smallholders are engaged (i.e. specificity of contracts, opportunities, constraints and major obstacles)

Topic 3 - Analysis of the situations in which small-scale contract farmers operate, focusing on two levels: i) analysis at the community level to comprehend local agricultural product market dynamics, ii) local dynamics associated with national land and agricultural policies.

b) Quantitative analysis

The quantitative approach is implemented with regards the uptake and impacts of contracts on smallholder farmers.

Indeed, the econometric approach aimed at analyzing the determinants of the uptake of contracts and contract farming's contribution to the households' farm income. The analysis was done in three stages. In the first instance, a probit model was used to analyze the uptake of contracts. The second step (first model of a Heckman model) was a probit analysis of factors determining whether or not farmers commercialize their agricultural produce (if not, they are considered to be subsistence farmers). The third step (second model of the Heckman model) was an ordinary least squares estimation of the determinants of farm income for farmers participating in markets. The independent variables included the probabilities of having a contract (saved results of the first probit model) and the inverse mills ratio that was saved from the second probit model. The estimation of the probit model as well as the Heckman procedure (models two and three were jointly estimated) was done using Stata.

The rationale behind this approach is the latent endogeneity and selection-bias issues around the uptake of contracts and commercialization of on-farm income. While market orientation, as opposed to the choice of subsistence production, is intrinsically linked to farm income, we suspected selection biases and corrected these by estimating a Heckman model (Greene, 2000). We also suspected that the uptake of contracts would be endogenous to farm income as a buyer's decision to procure from a certain region and within that region from a number of sellers, is not random (Barrett *et al.*, 2010; Bellemare, 2010b). Because the analysis seeks to test whether contract farming increases farm income, we needed to instrument the uptake of contracts to address these potential endogeneity problems while controlling for the decision to sell agricultural produce. Following Wollni and Zeller (2007), we introduce the probabilities obtained from the probit model on uptake in the farm income model. It is worth noting that farmers who had contracts were marketing their produce, while not all farmers who were marketing, had contracts. Contract uptake is instrumented by the importance of off-farm income in the total household income.² Furthermore, there is no theoretical reason to assume a causal relationship between the share of income from off-farm sources and agricultural income. Likewise, the likelihood to market produce is instrumented by the level of transfers; high social grants and remittances may influence the

² We assume that off-farm income is exogenous to farm income at household level because it consists mainly of welfare grants and remittances. In the case of cross-financing, livelihood diversification (increasing the share of off-farm income in total income) may increase agricultural income. It is equally possible however, that farm income may decrease as the share of off-farm income increases, in those instances where the off-farm income satisfies the household's utility levels.

likelihood that farmers commercialize, but they are exogenous and arguably not necessarily causally linked to farm income.

The independent variables selected for the first probit model are similar to those commonly used in literature for similar models (Bolwig *et al.*, 2009; Miyata *et al.*, 2009; Wollni *et al.*, 2010; Wollni and Zeller, 2007) namely (a) household characteristics (household size, age and gender of the head); (b) assets endowments (land area, size of the cattle herd) and (c) share of off-farm income in total income. Independent variables for the second probit model were similar to exogenous household characteristics in the first model (household size, age and gender of the head), supplemented with the level of education of the head and income from transfers. As mentioned above, we consider the two latter variables as relevant because these additional income sources will determine the choice of farming system without directly influencing the farm income. Agricultural income is regressed against (a) the household structure (age, gender), (b) farm characteristics (number of active people on the farm, land, access to irrigation and land tenure regimes) and (c) the probability of access to contracts. It should be noted that due to the low number of cases in this second step, the number of variables were limited and the results were interpreted with care. However, the outcome of the econometric models is confronted with the qualitative data analysis.

C. Implementation

The three different approaches (and thus research sites) were implemented through different researchers/teams. Although commonly managed and coordinated, the implementation itself and its progress varied significantly, leading to variegated results. The project was organized as following:

- Territorial approach (Tzaneen area – implementation of the three topics): team composed of core members of University of Pretoria (UP), CIRAD, together with Msc students of UP); finalized with detailed empirical results presented in three Master's theses (cf addendums).
- Organizational approach (Winterveld area - implementation of the three topics): second team composed of core members of University of Pretoria (UP), CIRAD, together with Msc students of UP); finalized with detailed empirical results presented in three Master's theses (cf addendums).
- Value-chain approach (Western Cape - implementation of the three topics): team composed of core members of the Western Cape Department of Agriculture, together with one Msc student of University of Stellenbosch); on-going – some empirical results have been integrated in this report.

In addition to the implementation of the core activities (3 approaches on the 3 sites), additional research activities – directly related to this subject – have been engaged in. The latter was either off-sets of this project or were engaged in to complement certain aspects.

- Contract farming and renewed farming and investment models (Project with Univ of Pretoria & Univ Paris XI, funded through CIRAD – 1 Msc student, finalized)
- Contract farming for improved market access (FAO/IAAE project/book, funded by FAO, finalized)
- Relationships between large-scale investments and evolution dynamics of smallholder agriculture and rural areas (FAO project, funded by FAO, Finalized).
- Additional case-study has been implemented: Sugar cane in Mpumalanga (analysis of the determinants of farmers' engagements in contractual agreements with the mill) (Msc student UP, partly core project funding – project on hold)

These studies provide additional and complementary results, benefiting the overall research and project. They have been used - as part of the overall project on contract farming - in this synthesis report.

CHAPITRE 4 - THE CONTRACTS ENGAGING SMALLHOLDERS SCRUTINIZED

This chapter presents a detailed description of each of the contracts engaging smallholder farmers identified in the different case-studies. It does so according to different characteristics – the combination of which has led to the contracts' classification: (i) input provision, (ii) Provision of credit for production, (iii) Provision of technical assistance, (iv) Management of production, (v) Production specifications, (vi) Price fixed in advance, (vii) Presence of formal (written) agreement, (viii) term of agreement.

A. Typology of contracts engaging smallholders

In the different case-studies, six types of contractual arrangements were identified between farmers and buyers according to their characteristics and modalities. Table 8 below outlines the contracts and their corresponding major characteristics.

Table 8: Types of formal contracts and their major characteristics

Major characteristics	Long term total integration contracts	Short-term quasi-total integration contracts	Production specification contracts	Production management and market specification contracts	Certified market specification contracts	Ad hoc 'informal' contracts
Input provision	X	X				
Provision of credit for production	X (related to input provision)	X	X			
Provision of technical assistance	X	X	X	X		
Management of production	X	X				
Specifications	X	X	X	X	X	X
Price fixed in advance	X	X	X	X	X	
Formal (written) agreement	X	X	X	X	X	
Long-term/Seasonal agreement	LT	ST	ST	ST	ST	Very ST
Generic form of contract	Resource providing contracts	Resource providing contracts	Production management contracts	Production management and market specification contracts	Market specification contracts	

Sources: authors

Based on their characteristics, the six types of contractual arrangements identified in the study area (Table 9) can be classified – to a certain degree - according to the three major, generic types of contracts cited in the literature review (i) resource providing, (ii) production management, and (iii) market specification contracts). However, their specifications might overlap, as detailed in Table 9 – hence our more detailed classification.

These different contracts are not *per se* linked to a certain commodity, but are related to a combination of specific commodity characteristics, the farmer/enterprise characteristics and output markets. The latter will be detailed in chapter 6.

Table 9: Additional production and sample specifications according to contractual arrangements

Farmers' characteristics	Long term total integration contracts	Short-term quasi-total integration contracts	Production specification contracts	Production management and market specification contracts	Certified market specification contracts	Ad hoc 'informal' contracts
Number of farmers contracted	9	10	3	1	5	10
Commodities	Broiler chicken	Peppadew, tomatoes	Citrus	Kumquats	Organic vegetables (green beans, butternut, beetroot, sweet corn, cauliflower, spinach) Certified citrus	Citrus
Market	Local, high hygiene conditions	Export, perishable	Export guaranteed/certified	Export guaranteed/certified	Local, certified	Local

Sources: authors

1. Long term total integration contracts

The first contract regards for deep litter broiler-chicken production and resource provision and management contracts. Figure 6, below, outlines the linkages between the farmers and the contractor as well as other relevant stakeholders in the broiler-chicken contract.

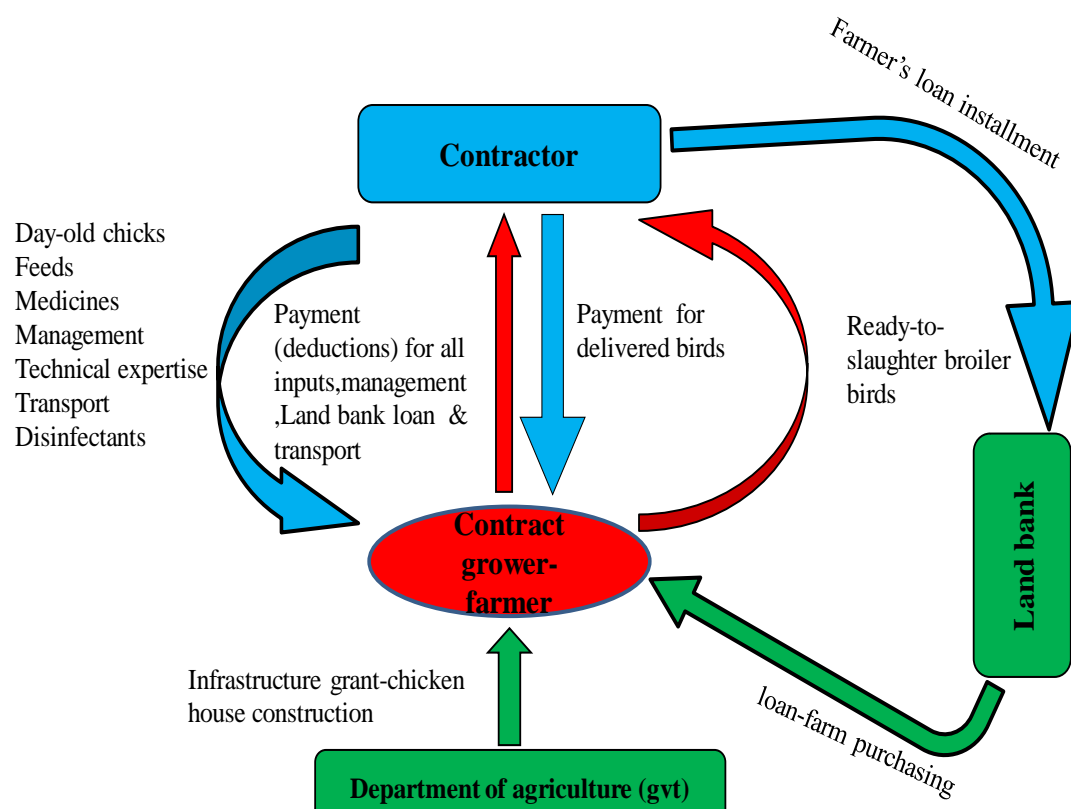


Figure 6: flow of inputs and output in broiler-chicken production contracts

Farmers are contracted to rear broiler-chicken for a company specializing in production of broiler-chicken, slaughtering and/or processing (abattoir) and marketing thereof. In this case, the agribusinesses have contracted farmers for duration of five years that could be renewed/extended based on the farmers' performance (and the willingness of either party). The contractor required farmers to have environmentally-controlled and automated (computer-programmed) broiler-chicken houses prior to signing the contract (See box 2).

Box 2: The establishment of deep litter broiler-chicken contracts

The broiler-chicken contract was initiated by the Limpopo DAFF in a bid to assist land reform beneficiary farmers. The Department requested a local industrial chicken processor to provide production expertise, slaughtering and marketing services for broiler chickens to selected farmers. Through the Land bank, the DAFF provided funds (grants) for the construction of environmentally-controlled broiler-chicken houses for 15 selected farmers. The agribusiness provided the specifications used in construction of the chicken-houses (each house carries 40 000 birds per production cycle of six weeks). Land bank provided the chicken processor with a "special" loan to expand their abattoir's capacity in order to cater for the extra numbers of ready-to-slaughter broiler birds from the 15 farmers. All contracted farmers acquired land through loans from the Land bank under the land redistribution programme (i.e., LRAD and CASP).

Sources: authors interviews

a) Marketing: transport, grading, pricing and payment

According to the out-growers' contract, farmers are obliged to deliver all ready-to-slaughter broiler birds at the end of each growing cycle of about six weeks (42 days). Ready-to-slaughter broiler birds are expected to have an average weight of 2kg. The contractor provides transport for broiler birds from all farms to the abattoir. Broiler birds delivered to the abattoir are also required to be disease free. Records detailing the daily operations and the development of broiler birds taken throughout each production cycle by the farmer and contractor experts are used to assess the suitability of birds for slaughtering. The farmer records the daily mortality and the cumulative mortality is reported at the end of each cycle: a mortality rate of at most 5% is recommended by the contractor. Prior to catching and transportation of broiler birds from each farm to the abattoir, contractor experts measure weight and conduct tests on a randomly selected number of birds to certify each batch for slaughter.

As of March 2010, the producer price for broiler chickens paid to contracted farmers was fixed at R9.18 per kg of live bird. This price is agreed between the farmers and the contractor at the beginning of each year. According to the contractor and respondent farmers, costs of day-old chicks, feeds, medicines, management expertise rendered, transport of feeds and chicks to the farms, ready-to-slaughter birds from farms to the abattoir and the going market prices locally and nationally are considered for producer price formulation. Despite the afore-mentioned, each batch of broiler birds transported from farms is weighed at the abattoir's weigh-bridge before the birds are delivered for slaughtering and the weight is then used to calculate the amount to be paid to a farmer. Thus the revenue that accrues to a farmer per bird will vary according to the average weight of delivered birds.

b) Input supply, technical assistance and production management

The chicken processor provides all contracted farmers with all required inputs for rearing broiler birds throughout each production cycle. The contractor keeps track of each farmer's production programme and supplies the requisite inputs accordingly: day-old chicks are ordered and transported to each farm following consultation and confirmation of readiness to receive these by the farmer. The farmer, with the assistance of contractor experts, prepares the chicken house (cleans, fumigates, adds saw-dust on floor, adjusts interior temperature) in time for each batch of day-old chicks. The chicken processor supplies the required feeds to each farmer prior to delivering day-old chicks: feeds of the right type and quantities are "fed" into storage tanks and automatically incorporated into the chicken house at scheduled times through a computer programmed system.

Each farmer monitors the feeding, growth and development of broiler-chicks: the farmer keeps daily records including mortality rates and reports these to the contractor experts. Contractor experts visit each farm to rectify any problems reported by a farmer and give relevant technical advice to the farmer. These experts also go on scheduled farm visits to

observe the progress of the broiler birds and adjust the computer programmed system in order to maintain ideal interior chicken house conditions.

The contractor keeps records of costs of all inputs supplied to each farmer in each production cycle, that is then paid at the end of the cycle: the total cost of inputs is deducted from the total revenue obtained from the broiler birds delivered in the particular cycle. Farmers are charged a fixed fee of R8000 for scheduled farm visits (enterprise management fees) by contractor experts in each cycle. Unscheduled farm visits, which are done at the request of the farmer, are charged for separately and fees vary according to the nature of technical advice and/or assistance offered to the farmer. Farmers are paid after one month following the delivery of ready-to-slaughter birds.

c) Credit finance

The chicken processor does not provide contracted farmers with credit finance although the total cost of all inputs and services provided to each farmer may be regarded as a proxy for credit finance (in kind). However, in cases of need, contracted farmers receive advance payments from the contractor in order to meet their variable costs. The amount of advance payment to each farmer depends on the expected value of the ready-to-slaughter broiler birds to be delivered to the abattoir at the end of a particular cycle. Thus the broiler-chicken enterprise serves as collateral for the farmer to access advance payments. Farmers are not charged interest on money advanced to them.

d) Risk management, contract failure and resolution of conflicts

Over the contract period (5 years), neither broiler-chicken out-growers nor The chicken processor is allowed to disengage from the contractual arrangement unless either party breaches terms of contract beyond redress. In cases of breach of contract terms, either party, the contractor or the farmer, solicits the intervention of the association of the contracted farmers (Rainbow Chicken Farmers) for civil arbitration. The contractor and farmers also engage the department of agriculture to assist in redressing any arising conflicts.

Each farmer's broiler-chicken enterprise is insured against several types of risks including fire and disease outbreaks. The contractor pays the subscription installment for each farmer and the total cost is paid off as part of the deductions from revenue at the end of each production cycle. It is this insurance that covers both parties in cases of failure of enterprises. However, assessment of the cause and nature of enterprise failure is done in order to establish the merit of responsibility and/or liability prior to any possible insurance payout(s).

2. Short-term quasi-total integration contracts

Three agro-processing companies procure peppadew and tomatoes, and less pronounced butternuts, from farmers under more-or-less similar contractual arrangements. Although there are slight variations, all companies provide contracted farmers with seedlings of the

required variety of the crop; stipulate crop husbandry practices: required chemicals, fertilizers and applications rates; and manage the growth and development of the contract crop by providing technical expertise. Contracted farmers pay for seedlings and any finance extended to them at the end of the season subsequent to harvesting and delivery of the commodity (Figure 7).

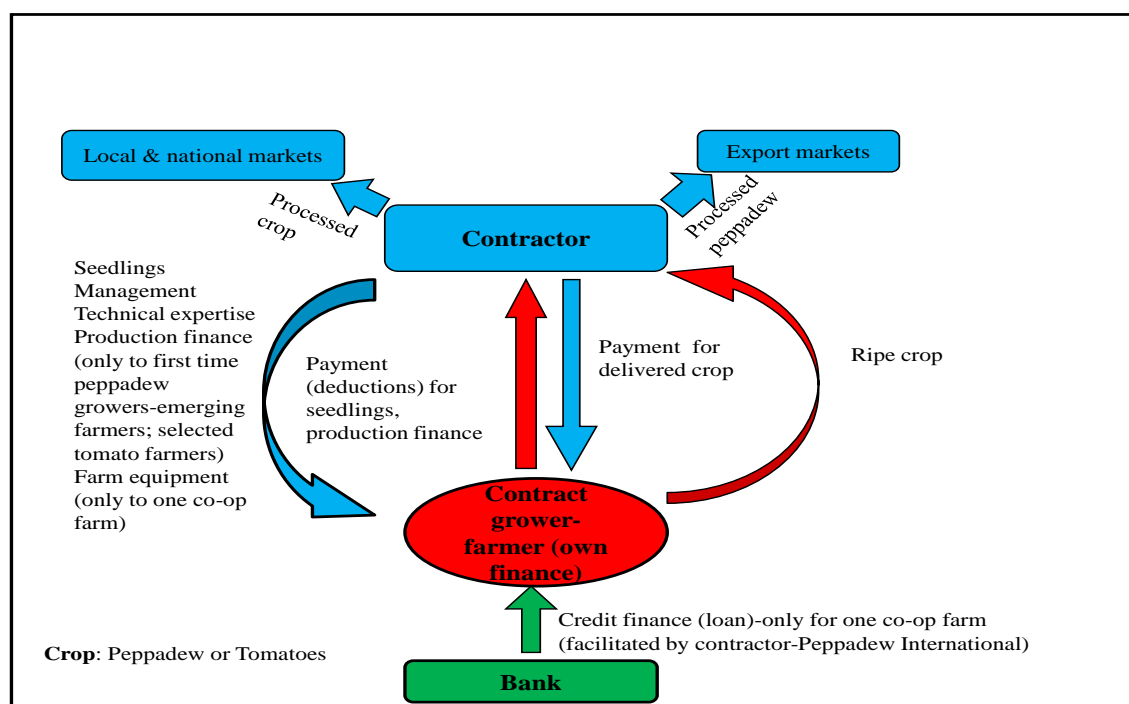


Figure 7: flow of inputs and outputs in the peppadew or tomato contract in Tzaneen

a) *Marketing: transport, grading, pricing and payment*

Contract growers are compelled to deliver all ripe produce to the company's processing factory at the end of each growing season. The company buys all produce harvested by each farmer and pays for it if and only if it satisfies stipulated quality standards; all crop that does not meet minimum standards is destroyed by the company following consultation with the concerned farmer.

The agribusinesses offer fixed producer prices for different grades of crop delivered to the factory by farmers. regarding the peppadew, the company classifies acceptable fruit into two main grades with variations according to fruit size, blemishes (due to pest attack, sunburn, and wind scaring), black spot, extent of ripeness, and the presence of calyx on fruit. The two main grades used by the company are referred to as the "choice grade" for fruit weighing at least six grams and the "standard grade" for fruit weighing between four and six grams. As of March 2010, the fixed price for the choice grade of peppadew was R6200 per ton while the standard grade price varied between R5000 and R6000 per ton. Contracted tomato farmers deliver all ripe tomatoes at a fixed price of R1200 per ton. According to the companies, these fixed producer prices are arrived at by considering a number of factors including the cost of

production incurred by farmers, cost of transport and the prevailing demand and supply levels in international markets where the company's products are exported to.

Prior to delivering peppadew to the factory, contract growers inform the contractor about their crop: extent of ripeness and yield estimates. Growers submit records of the fertilizer application and spraying schedule/operations, including names of specific fertilizers and pesticides used, to the contractor before delivering any crop consignment. The contractor only accepts deliveries of the crop following an assessment of the record submitted by each farmer: adherence to the company's recommended programme is used as the benchmark. Growers use own or hired transport (which can be subsidized – as was the case for the tomatoes) and harvested crop is only accepted when it is delivered in the company supplied bulk bins.

Subsequent to delivery of the first crop consignment by a farmer, the contractor's factory experts draw a sample of the produce for grading purposes. For example, in the case of the peppadew, the sample is divided into two equal quantities: one half is subjected to grading assessment and laboratory tests for chemical and fertilizer residues and the other half is stored safely for use in cases of disputes with farmers. Results of sample assessment and laboratory tests are then considered on attaching a grade (s) to the farmer's crop. Although the contractors do not have very stringent quality standards, all produce delivered to the factory are supposed to be ripe (red), and not green, with minimum to no blemishes due to pest attack or physical damage. Thus the fixed producer price is subject to adjustment based on the quality of the produce delivered to the factory by a farmer. The results and grades as well as the price fetched by the crop are then communicated to the farmer, often through a mobile phone text message and followed up by a fax of printed out grades, lab tests, and prices.

If a farmer does not object to the above, the contractor deducts the total cost of seedlings, hired bulk bins and any production finance extended to the farmer over the growing season before processing payment into the grower's bank account. The contractor pays for all delivered fruit after two to three weeks and payments are made on a fixed day of the month or a certain number of weeks after delivery.

b) Input supply, technical assistance and production management

The agribusiness provides all contract growers with seedlings for each planting and these are paid for in two installments following harvesting and delivery of ripe crop to the factory. Fifty percent of the total cost of seedlings supplied to a farmer is deducted prior to payment when the farmer delivers the first fruit consignment and the remaining amount comes from the second consignment. Regarding the tomatoes, the agribusiness provides seedlings to contracted farmers albeit not all: only those farmers who are deemed strategic tomato suppliers are supplied with seedlings. The rest of contracted farmers are expected to procure their own seedlings but stick to the preferred variety (i.e., factory/jam tomato).

The firm contract growers are visited by the company's agricultural extension officers once in every week to inspect the crop, receive each farmer's record of operations carried out and any problems encountered. The extension officers advise farmers on how best they can nurture their crop and remedy any reported problems. In the case of the peppadews, the agribusiness does not charge contract growers for any technical assistance extended to them in each growing season; in the tomato one, the company relies on the department of agriculture to assist tomato contract growers with relevant technical advice. The company also convenes monthly meetings where farmers are advised on tomato growing best practices and solutions to any problems experienced.

c) Credit finance

The agribusinesses provide interest-free production finance to small scale "emerging" contract growers on inception of their first contract. The amount of production finance given to contract growers depends on the size of land to be planted with peppadew, cost of inputs, and the ability to raise own finance exhibited by each farmer. The company regards the envisaged yield as collateral for the production finance extended to farmers. In some instances, the company provides advance payments to assist farmers who experience shortages of money to cover variable costs of operations for their enterprises. This is done at a farmer's request and no interest is charged on money extended to the farmer. Regarding the tomato contracts, the agribusiness provides production finance only to a selected number of contract growers. Only farmers considered strategic suppliers of tomatoes to the factory are assisted with interest-free money at the inception of the growing season.

In the case of peppadew, the agribusiness also acted as a guarantor to help contracted cooperative access credit finance (loan) from the First National Bank (FNB) in 2008. The company also extended interest-free finance to the cooperative farm for the purchase of farm equipment.

d) Contract failure and resolution of conflicts

In cases where peppadew contract growers do not adhere to the contractor's guidelines, the latter has the prerogative of terminating the contract seven days following intimation of the identified breach.

For peppadew, cases of contract breach would entail uses of non-stipulated chemicals and fertilizers with prior consultation and consent of the contractor, use of the contractor's material (including seedlings) for purposes (such as propagation of for resale, research and breeding) other than that of peppadew growing activities and not adhering to the spraying programme and/or application rates. The agribusiness will not buy peppadew that does not meet quality standards, stated above, as stipulated in the contract. The contract allows the contractor to withhold payments to growers if the latter do not submit spraying records and if 40% of the delivered crop does not meet quality standards. However all growers are allowed to have a second sample of their crop graded in their presence in an event that they dispute results of grading and testing conducted at the factory.

Although the tomato contract terms are not very stringent and decisive in cases of breach by farmers or the company, there is recourse to non-adherence by either party. Tomato growing contracts are only terminated in extreme cases as the primary goal of the company is to assist and “incubate” emerging farmers. In cases of contravention of any terms, the non-breaching party is supposed to give a detailed written notice to the other and the contract can be terminated if five days lapse without remedy being affected.

Crop damage due to natural disasters such as hail, drought, floods, frost and fire would not compel either party to bear any costs and the growers are exempt from paying for seedlings. However, in cases of negligence on either party, the non-breaching party is allowed to seek legal recourse in order to recoup costs suffered due to such action/behavior.

3. Production specification contracts

Formal (written) contractual arrangements with production specification were encountered in the oranges and grapefruit sectors. Two cooperative farms, with a total of 45 member farmers, and an individual farmer are contracted to grow oranges and grapefruits mainly for export markets. An agribusiness has contracts with these growers and specializes in buying and exporting citrus (Figure 8). Low grade fruits are disposed of in local markets on non-contractual basis.

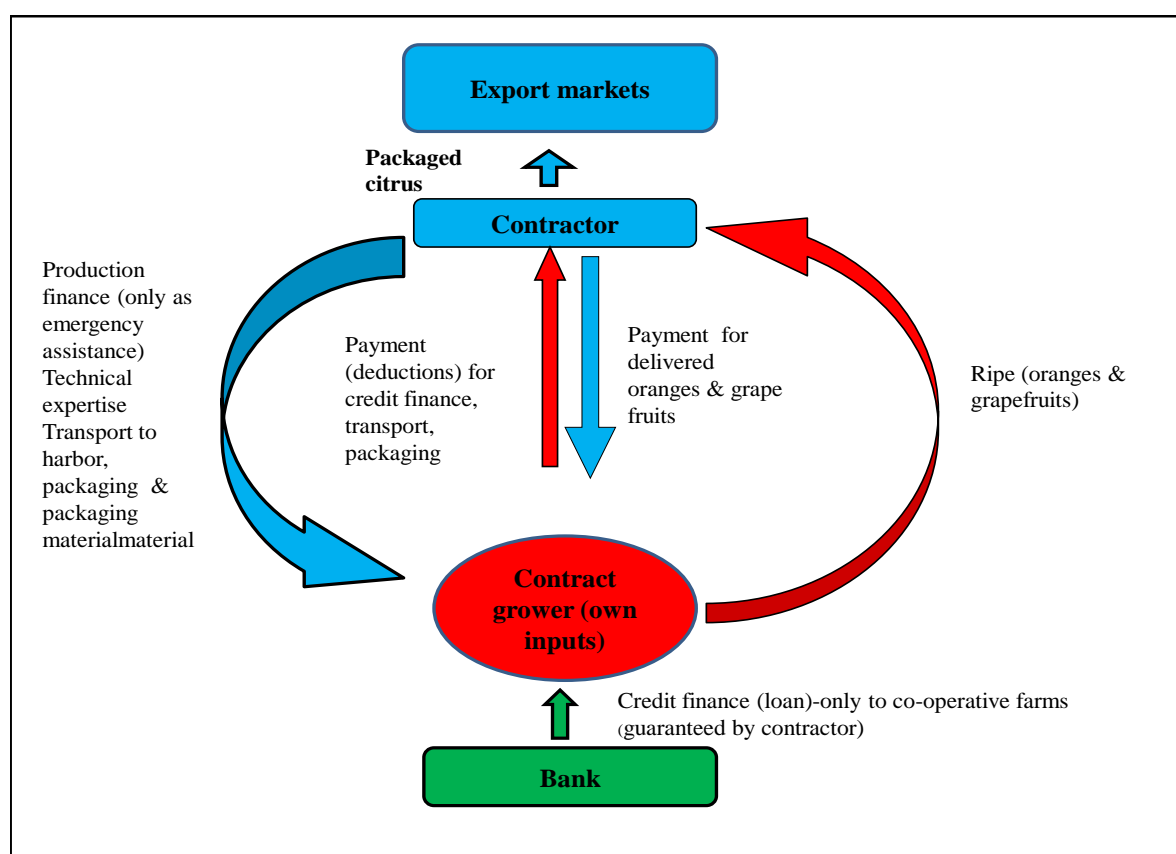


Figure 8: Input and output flow in the production specification and market specification contract

a) Marketing: transport, grading, pricing and payment

Contract growers transport own fruits from farms to company packing house and the contractor provides transport to the harbor. Farmers are charged for the transfer of their fruits from the packing house to the harbor. According to the contract, farmers are compelled to deliver all ripe first and second grade fruits to the contractor's packing house. The contractor buys all consignments of fruits delivered to the packing house which satisfy the quality standards of the afore-stated grades.

The prices paid to farmers for citrus are agreed upon with the company at the beginning of every farming season. According to both parties, a number of factors are taken into consideration to determine the producer prices: the costs of production, cost of transport, packaging costs and the international market situation.

Grading of fruits is done at the packing house by the company's buyer in the presence of the growers or their representatives. Farmers are paid for delivered fruits after a period of one month; the contractor deducts the cost of transport from the packing house to the harbor, packaging costs and credit finance prior to paying the farmers for delivered citrus.

b) Input supply and technical assistance

The agribusiness does not provide contracted farmers with inputs according to the contractual arrangement. However, the contract allows the agribusiness to stipulate types of fertilizers and chemicals to be used by the farmers during the growing season and farmers are compelled to adhere to the application rates and desired citrus husbandry practices.

Company citrus experts visit farms frequently to assist farmers with advice on citrus husbandry as well as providing remedy to any problems encountered. These company experts also monitor the growth and development of citrus fruits in order to make sure that farmers attain high yields of good quality fruits. Contract farmers are not charged for the technical expertise rendered to them during the growing season.

c) Credit finance

Although the contract does not compel the agribusiness to provide credit finance to farmers, the company extends credit to farmers in situations where the latter experience shortfalls during the course of each growing season.

The amount of credit finance extended to each contract grower depends on the production needs and shortages experienced as well as the ability of the grower to pay back. This credit finance is charged an interest of 12.5% and is payable at the end of each growing season. Contract citrus enterprises and expected yields/income are considered as collateral for the credit finance by the company. This contract allows the agribusiness to play the role of a "pseudo-guarantor" for the loans extended to co-operative farms by the DBSA prior to the inception of this contractual arrangement.

d) *Contract failure and resolution of conflicts*

The contract document in the farmers' possession is not clear on issues of failure and conflicts; however respondent farmers indicated that the contractor has the prerogative to terminate the arrangement if they do not comply with the stipulated citrus husbandry programme. Thus the contractor can reject fruits delivered by any contract grower that do not meet stipulated quality standards.

4. Production management and export market specification contracts

The production management and export market specification contract for citrus, in particular kumquats, is between a citrus exporting company and farmers. The company engages 10 citrus growing farmers in Tzaneen: among the contract farmers, there is one emerging farmer who grows kumquats for export markets under a formal (written) contractual agreement while the rest are large scale farmers. The contract is seasonal, includes provision of technical assistance for the (smallholder) farmers, related to production specifications (Figure 9).

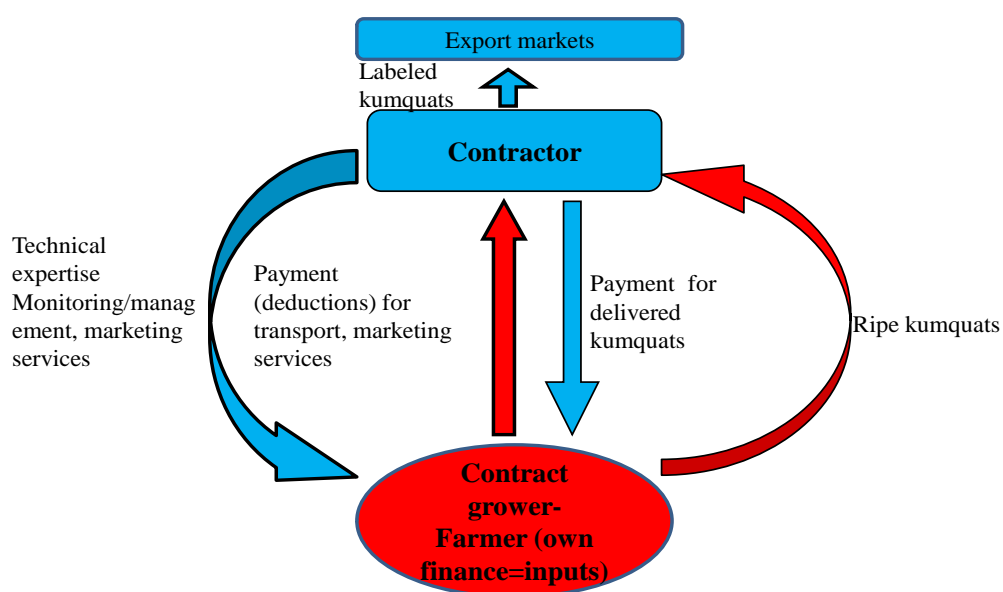


Figure 9: flow of inputs and outputs in the production management and export market specification contract

a) Marketing: transport, grading, pricing and payment

The contract stipulates that the farmer delivers all ripe fruits (kumquats) to the contractor's packing house. Only fruits which meet quality standards as stipulated by the contractor are accepted. The company does market research and informs the farmer of the prevailing prices and required fruit quality/grades. A minimum price is agreed upon between the farmer and the contractor prior to disposal of the fruit.

The farmer sorts, grades and packages the fruit in the farm's packing house according to the guidelines supplied by the contractor. Quantities and grades of consignments delivered to the contractor are done according to the orders placed by the contractor. Kumquats are separated into first and second grade: grades are based on size of fruits, extent of damage due to diseases such as black spot, sun burn, and fungal rust. Only the first and second grade fruits are exported while third grade is sold locally and nationally. The company labels and transports the fruits to the harbor or airport en route to export markets. The maximum price fetched by the exported fruit in 2009/10 season was R40 per cartoon (2kg).

The company charges the farmer for transportation of the fruit to the harbor: the farmer pays a fixed amount of R15,000 per month for transport. The farmer is charged a commission of 13% of the total revenue from each season's fruit sales as payment for the contractor's services. The farmer is paid for delivered fruit after a period of about three months. The contractor deducts all costs and commission before depositing the farmers' money into his bank account. Prior to payments, the farmer can request advance payments from the contractor the amount of which is deducted at the time of payment.

b) Input supply, technical expertise and production management

The contract does not compel the agribusiness to provide the contracted farmer with inputs but technical expertise and production management. Citrus experts from the contractor visit the farmer once fortnightly to inspect the growth and development of the fruit and render advice to the farmer. The experts also check if the farmer is adhering to stipulated citrus husbandry practices: the farmer is expected to provide the company experts with records of farm operations including spraying and fertilizing done. The contractor does not charge the farmer for technical advice and management of the citrus enterprise.

c) Credit finance

The agribusiness does not extend credit finance to the contracted smallholder farmer. However, short term loans are extended to large scale farmers.

d) Contract failure and conflict resolution

According to the respondent farmer and the company's respondent, the contract allows either party to terminate the agreement in cases of breach of stipulated terms with prior written notice to the breaching party. The contractor can also terminate the contract if the farmer does not follow stipulated citrus husbandry practices and the fruit does not meet

expected quality standards. Any discord between the farmer and the contractor is resolved through dialogue between a company representative and the farmer.

5. Certified market specification contracts

The certified market specification contracts concern two categories: i) organic vegetables mainly under contract with specific supermarkets, ii) certified citrus production, mainly oranges. In the first case, an association of organic (17) farmers is formerly contracted to grow green beans, butternut, beetroot, sweet corn, cauliflower, and spinach on an annual relational basis. As of March 2010, only four of the seventeen farmers were actively supplying the agribusiness, while the remainder are idle (or cannot satisfy quality standards) due to a number of factors including lack of production finance. In the second case, it is again an association of farmers, gathered together through a cooperative farm, while preserving individual production parts.

Figure 10 below shows the linkages between organic farmers and the supermarket as well as other relevant stakeholders in the organic certification contract.

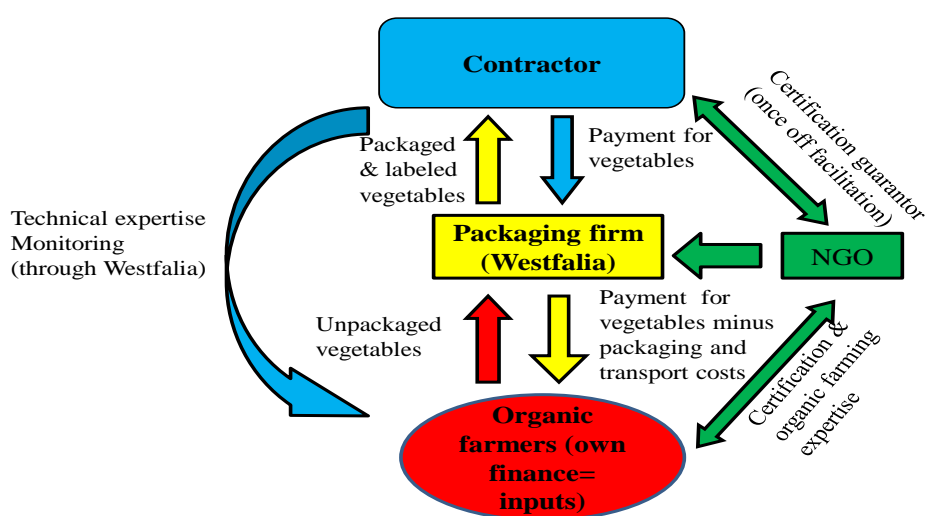


Figure 10: inputs and outputs flow in the organic vegetable certification contract

All organic farmers were linked to the agribusiness through assistance from an NGO. The citrus farmers respond to a similar organization, albeit organized through a well-connected 'mediator' (Box 3).

Box 3: The establishment of the Certified market specification contracts with a supermarket

The organic vegetable contract initiated in 2005 and growers started supplying the supermarket in 2007. An NGO helped the farmers with the conversion from conventional to organic methods of farming: the NGO provided farmers with expertise on organic farming through their agronomists. The NGO facilitated the inspection for suitability to produce organic vegetables and the certification of the association's farms. Costs of certification were borne by the NGO on behalf of the farmers' association.

Following their certification, farmers were linked to a transporter for the required grading and packaging of their produce and its transportation to the supermarket central depot. The NGO solicited this link on behalf of the farmers since the supermarket requires specific grading and labeling of all vegetables delivered to its depot: The organic specialized agribusiness has special packing houses for organic products and is a major supplier of the supermarket.

Sources: authors' Interviews

a) Marketing: transport, grading, pricing and payment

The supermarket/agribusiness buys all organic/certified produce from contract farmers if and only if the stipulated quality standards are satisfied. Farmers transport their produce to an organic specialized agribusiness for grading and packaging as well as labeling before transportation to A supermarkets' central distribution centre (Midrand).

The organic specialized agribusiness stores and grades all supplied vegetables according to a supermarket's requirements. Although farmers are not directly involved in the grading process, a representative of their association works with the organic specialized agribusiness throughout the whole process and reports back to the farmers. Farmers are charged for grading and labeling of all produce. The organic specialized agribusiness transports the packaged vegetables to a supermarket on behalf of the farmers.

A supermarket agent meets with Nkomamonta farmers at the beginning of every growing season/year to agree on producer prices. According to respondent farmers, a number of factors are taken into account in deciding different vegetables' producer prices. Prevailing costs of inputs, transport, labor, and the levels of demand and supply constitute major determinants of the contract producer price. The set producer prices remain fixed throughout the production season unless consultative adjustments are effected. However these prices will vary according to the quality of vegetables delivered to A supermarkets by farmers.

The contractor stipulates production methods to be used by farmers: farmers are supposed to use organic seeds, organic fertilizers and organic pesticides throughout the growing season of each vegetable. The organic specialized agribusiness inspects and tests vegetables from farmers to ascertain adherence to stipulated production guidelines requires that farmers: laboratory tests are conducted on samples of each vegetable to detect the type and

level of residues of fertilizers and chemicals used by farmers. Results of these tests are also used to determine the producer price and the acceptance or rejection of delivered vegetable consignments.

The organic specialized agribusiness pays contract farmers following deductions for packaging and transport services. Farmers receive statements indicating the final grades and prices fetched by their vegetables and payments are made into their bank accounts. Payments are done after an average of three weeks subsequent to deliveries.

b) Input supply and technical assistance

The organic vegetable certification contract does not compel the supermarket/agribusiness to assist contract farmers with any inputs. Farmers are expected to purchase required inputs, as specified, using their own funds. In the case of the supermarket, the intermediary provides organic farmers with technical advice through an organic agricultural expert placed with the company by the supermarket. In the case of the citrus farmers, although not directly provided, farmers can request for technical advice from the agribusiness at any time without being charged,

c) Credit finance

The agribusinesses do not lend money for farming activities to contracted farmers. Farmers finance their farming activities through own equity and other sources of income such as employment salary, other non-farm activities such as businesses, remittances and personal bank loans.

d) Contract failure and conflict resolution

In cases where a farmer does not adhere to stipulated procedures of organic/certified farming, the association has the mandate to reprimand the particular member farmer. The association stops the breaching farmer from disposing of produce collectively.

If the the breaching farmer's produce is not withdrawn by the association and is detected after testing, the farmers' consignment will be withdrawn from the collective consignment. Repeated violation of expected standards results in the particular farmer's exclusion from the association. Contravention of stipulated production guidelines and expected quality standards by more farmers will result in termination of the collective contract.

6. Ad hoc 'informal' contracts

Informal (unwritten) contractual arrangements between a few large scale farmers and some atchar factories, a juice factory and fresh produce markets' buying agents were also identified. Some smallholders were engaged in informal contracts with agribusinesses, including supermarkets and juice processors, particularly in the citrus sector.

In all informal arrangements, buyers indicated that they engage with mango and citrus farmers only when the productions are well established. The latter represent either large-

scale farmers, with potential to provide the quantity and quality required, or small - although more often emergent farmers with a well-known and good track record. Expert buyers from companies scout for and follow farmers with potential to supply quantities and qualities of fruits required and enter into gentleman's agreements with them.

These agreements are short-term (end when the farmer has been paid for any delivered quantity of fruit): farmers indicate the quantities of fruit that they can possibly supply and the buyers state the probable producer price or price range. Since these arrangements are not written, both parties, farmers and buyers, are under no strict obligations to honor them. Most but few of the informal contracts are seasonal and non-relational: these agreements do not often recur in successive seasons.

B. Concluding comments - contracts engaging smallholders

In the different case-studies, six types of contractual arrangements were identified between farmers and buyers/agribusinesses. Although most of them can be defined according to the more generic categories found in the literature, their specifications might overlap, hence our more detailed classification:

- Long term total integration contracts (Resource providing contracts);
- Short-term quasi-total integration contracts (Resource providing contracts);
- Production specification contracts (Production management contracts);
- Production management and market specification contracts (Production management and market specification contracts);
- Certified market specification contracts (Market specification contracts);
- Ad hoc 'informal' contracts.

The development of a contractual model does not seem to be related to a sole variable/criteria. Indeed, these different contracts are not *per se* linked, for example, to a specific commodity, but are related to a combination of specific commodity characteristics, farmer/agribusiness characteristics and output markets, which on their turn relate to specific external factors (see chapter 6).

CHAPITRE 5 - THE EFFECTIVENESS OF CONTRACTS: THE SMALL FARMERS' PERSPECTIVE

The previous chapter presented the contract models engaging smallholders in different sites and sectors in the study regions of the project, illustrating some of the linkages recently developed by agribusinesses with smallholders in South Africa. The following chapter examines who are the contract farmers, which are their trajectories, and how contracts enabled them to integrate modern market channels by alleviating (or not) their constraints, therefore questioning their effectiveness.

The chapter will first be opened by a description of the smallholder contract farmers and their trajectories. It will thereafter discuss the effectiveness of the contracts in terms of benefits and treats for the smallholders' standpoint in order to integrate small-scale farmers to modern markets circuits.

A. Characteristics of contract farmers

Tables 10 and 11 compare the mean values of major characteristics of contract farmers and non-contract farmers. The two groups differ significantly in their demographic characteristics, asset endowment and income structure. Contract farmers seem to have smaller households (with less older members and more children) and are led by younger heads (mostly male); they have better access to land, mostly under private tenure or in land reform schemes and all of them have access to irrigation (through various types of irrigation systems), with larger cattle herds and higher agricultural incomes. Among the group of non-contracted farmers we count more female headed households with significantly lower levels of education, less land (consisting mainly of gardens) and with a greater dependency on social grants.

Table 10: Comparison of means between contract and non-contract farmers (standard deviation in brackets)

	Contracted farmers (n=36)	Non contracted farmers (n=70)	T-stat
Household size (nb)	2.56 (1.92)	5.17 (3.11)	5.338***
Share children in household (%)	14.41 (17.76)	6.88 (18.02)	2.049**
Age of household head (years)	50.42 (11.84)	57.41 (14.47)	2.500**
Available land (ha)	98.04 (106.43)	20.17 (63.60)	-4.035***
Cultivated land (ha)	36.58 (63.76)	10.69 (30.98)	-2.300***
Share cultivated (%)	41 (33)	92 (22)	8.197***
Number of cattle	19.03 (43.88)	4.26 (13.28)	-1.974*
Agricultural income (R/year)	2,095,423 (3,122,966)	143,956 (600,139)	-3.714***
Remittances received (R/year)	2,666 (5,928)	4,670 (14,609)	0.789
Social grants received (R/year)	4,369 (6,991)	8,314 (7,714)	2.572**
Total income (R/year)	2,115,694 (3,115,194)	171,919 (601,174)	-3.708***
Share of income from off-farm source (%)	16.5 (28.5)	63.7 (33.9)	7.568***

*Note: *** significant at 1%, ** significant at 5%, * significant at 10%*

Table 11: Comparison of shares (%) of determinants between contracted and non-contracted farmers

	Contracted farmers (n=36)	Non contracted farmers (n=70)	Chi-square-stat
Gender household head (% male)	83	47	12.915***
Access to off-farm income (% yes)	56	89	14.795***
Education above primary level (%yes)	94	33	36.276***
Rain-fed production (% yes)	11	50	14.460***
Private land tenure (%)	50	17	
Communal land tenure (%)	14	10	
Gardens (%)	0	63	
Land reform (%)	36	0	
Garden + communal land (%)	0	10	60.893***

*Note: *** significant at 1%, ** significant at 5%, * significant at 10%*

a Chi-square test for land reform versus contract farming

Sources: authors

In the probit model we explain participation using several variables which are expected to determine households' ability to engage in contracts. The probit model is highly significant and predicts almost 88% of the observed engagement in contracts (Table 12). The model supports the conclusions of the typology analysis and finds that land size increases the probability to engage in contracts while the share of off-farm income in the total income decreases this probability. The model confirms that farmers with low land endowments (micro-subsistence farmers and smallholders) are more likely to be excluded from contract farming.

Table 12: Probit model of uptake of contracts (0: no contract; 1: contract)

	Coefficient	Robust std. error	z-stat
Household size	-0.247	0.086	-2.87***
Age of household head (yrs)	0.201	0.091	2.21**
Age squared (yrs ²)	-0.002	0.001	-2.40**
Gender of household head (1: male/2: female)	-0.248	0.352	-0.70
Share off-farm income (%)	-0.012	0.007	-1.68*
Log land size (log ha+1)	0.282	0.138	2.04**
Cattle (number of heads)	0.001	0.005	0.19
Constant	-3.870	2.229	-1.74*
N= 106			
Wald chi ² =36.67			
Pseudo R ² = 0.519			
Correctly classified 87.5%			

Sources: authors

B. Trajectories of contract farmers

The qualitative analysis implemented in the study area in Limpopo assists in classifying the identified contract farmers into two categories. The first group of contract farmers consists of large-scale commercial (mostly white) farmers. The analysis of their trajectories shows that they access contracts as preferred suppliers of processors (for e.g. what we called ad hoc 'informal' contracts or other types of formal written contract), supermarkets and exporting agents as a result of a good asset endowment base (large cultivated areas on private land; efficient irrigation systems and equipment). They have succeeded in equipping the farm and becoming, relatively speaking, highly productive, due to the public support and incentives they received during apartheid (subsidized interest rates, tax concessions and price support combined with strong institutional arrangements with cooperatives). After liberalization, the deregulation of markets and the dismantling of parastatals, only the largest and the more efficient farmers in this group were able to meet the required volumes and quality (norms and safety standards) and succeeded in remaining preferred suppliers.

The second group, which is the target group of the project, consists of smaller-scale farmers located on both private (redistributed) land and communal areas. The analysis of their trajectories shows convergent trends. Most of them accessed support measures as a result of social networks established before the end of apartheid (for example, access to land and support as public workers or as decision makers in the Homelands). Others benefited from recent public support in the context of Broad-Based Black Economic Empowerment for Agriculture and other affirmative action programmes.

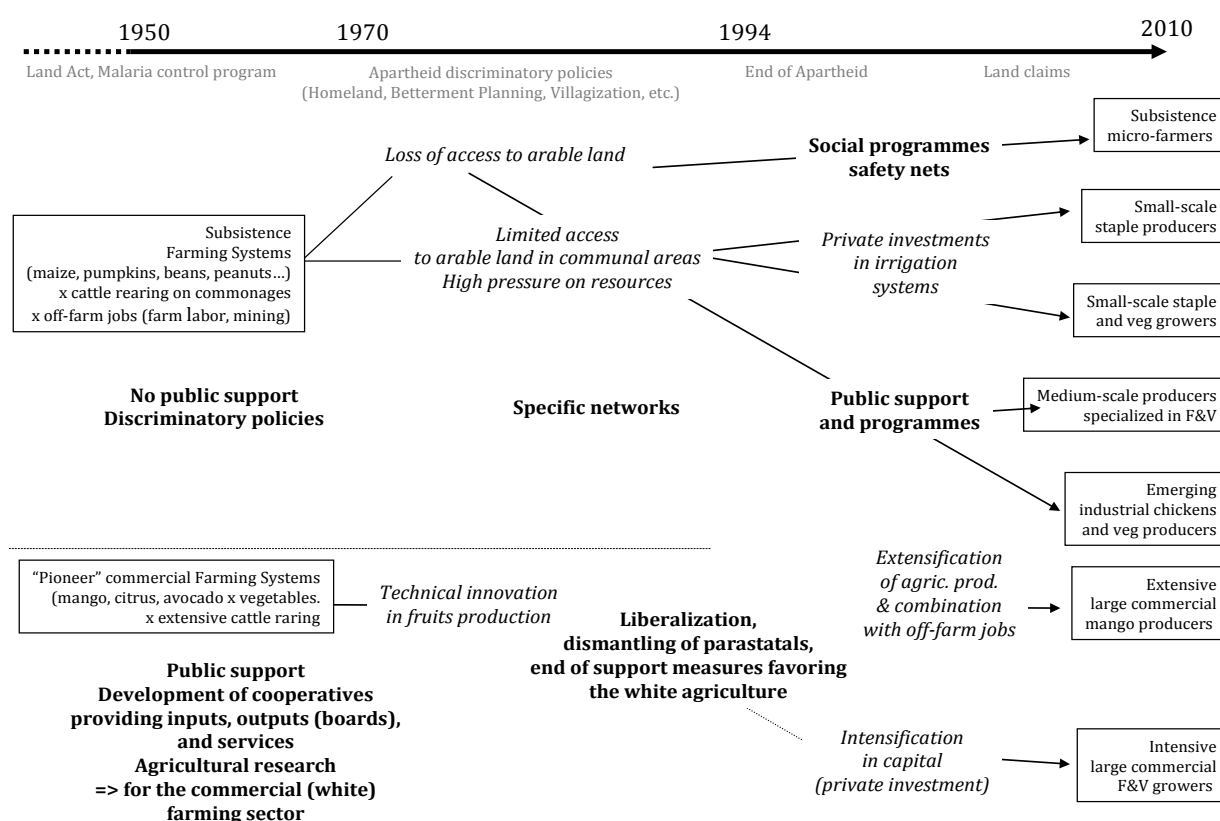


Figure 11: trajectories of households per types of farming systems

Sources: authors

Figure 11 presents the global picture of trajectories of farmers in the Tzaneen study area in Limpopo. These global trajectories can be illustrated through the interviewed smallholders' trajectories for each of the contract types detailed in chapter 4.

1. Trajectories of smallholder farmers engaged into long term total integration contracts

In this section, the trajectory of the contract broiler chicken farmers will be outlined; specific information of one representative farmer will be used to provide a comprehensive background of these farmers; and the likely influence on engagement in the contractual arrangement will be traced.

Mr. Sithole³ was born in Bushbuckridge in Limpopo in 1950. He attended school and trained as a teacher. Between 1975 and 1992, Mr. Sithole taught at different high schools in the province and was elevated to the position of an education officer (curriculum implementer) for mathematics in 1992. Mr. Sithole worked as an education officer in the province and retired in 1999 due to ill-health problems.

³ A pseudonym was used to protect the respondent's identity

In 2000, Mr. Sithole bought a farm (55.5 ha) in Tarentaalrand (Tzaneen) with the help of a loan from the Land Bank through the country's land reform programme (LRAD). Mr. Sithole assumed ownership of the farm which has 32 ha of mango trees. With his own equity, he planted rain-fed maize and vegetables on about 6 ha of his farm. Harvested mangoes were sold to archar factories within Tarentaalrand while maize was for family consumption with surplus disposed of to local buyers. Vegetables were sold to hawkers and the informal market at the taxi/bus rank in the Tzaneen town.

In addition to the mango, maize and vegetable enterprises, Mr. Sithole started a broiler-chicken production enterprise in 2002. The farmer used his own savings to construct three open structures with a combined carrying capacity of 2000 birds per cycle. The bulk of the ready-to-slaughter birds were sold to hawkers (and the local communities) while a few were sold to The chicken processor's abattoir.

Mr. Sithole, with a number of other farmers, signed a contract to grow and supply organic vegetables to A supermarket in 2006. This group of farmers formed an organic farmers' association (Nkomamonta Organic Farmers) and were assisted by an N.G.O (HIVOS) to transform from conventional to organic farming methods. HIVOS helped these farmers with organic certification and liaised with an organic specialized agribusiness to provide the packaging services in line with A supermarket's procurement standards. Like the rest of the member farmers, Mr. Sithole uses his own money to grow organic vegetables although the group of farmers occasionally buys expensive organic certified seeds and fertilizers collectively. Most of the organic vegetables (green beans, green pepper, sweet corn, lettuce, spinach, beetroot and egg plant) are sold to a supermarket while the remainder is sold to local buyers and shops.

In 2007, through the government infrastructure grant, Mr. Sithole transformed his broiler chicken rearing enterprise from an open structure to an environmentally controlled chicken house with a capacity of 40000 birds per cycle. The construction of the environmentally-controlled chicken house was meant to enable Mr. Sithole to engage in a contractual arrangement with the chicken processor which, in effect, had been facilitated by the department of agriculture. Thus Mr. Sithole is contracted by the chicken processor to grow and supply the company's abattoir with ready-to-slaughter broiler birds in every cycle for a period of five years. On average, Mr. Sithole supplies 38000 ready to slaughter broiler birds to the chicken processor per cycle.

2. Trajectories of smallholder farmers engaged into short-term quasi-total integration contracts

The trajectory of the contract peppadew farmers is outlined; specific information of one representative farmer engaged into short-term quasi-total integration contracts, and a cooperative farm also engaged in such contracts is used to provide a comprehensive background of these farmers.

Mr. Mado⁴ was born in 1961 in the Tzaneen area of the Limpopo province. After attaining matric in 1985, he worked in citrus farms as a general laborer until early 1990s. Mr. Mado underwent on-farm training in farm management and citrus production from both private and government run citrus farms and became a citrus growing adviser in 1994.

Between 1995 and 2005, Mr. Mado worked as a citrus farm manager on both private commercial farms and government-run farms. He was an adviser in the establishment of two cooperative citrus farms in Tzaneen which were funded by the homeland government through the ARDC: Mr. Mado provided expertise required for planting and management of citrus trees and was later employed as a manager at one of the ARDC citrus farms and remained in that position until 2005.

In 2005, Mr. Mado commenced to lease a farm (252 ha) from a restitution community in the Eiland area. The farm was formerly run by the ARDC and had about 25 ha of orange and grape fruit trees. Mr. Mado planted 15 ha of citrus trees to expand his enterprise. The farmer entered into contract with The citrus exporter Citrus which provided him with a R600000 loan as production finance. To date, Mr. Mado has 40 ha of citrus trees and the enterprise operates under a relational contract. In addition to citrus, Mr. Mado grows butternuts (5 ha) and peppadew (15 ha) which commenced in 2007 and 2008, respectively. Butternuts are grown on non-contract basis while peppadew is produced under a relational contract with the peppadew processor. Mr. Mado received a production loan of R100 000, at 12% simple interest, from the processor in 2008. The farmer has a micro-jet irrigation system for the citrus trees and drip irrigation systems for both peppadew and butternuts enterprises. Mr. Mado owns two tractors and one vehicle which he uses in the farm business.

Through The citrus exporter Citrus, Mr. Mado exports all his first and second grade oranges and grape fruits while the remainder is sold to local fruit hawkers and citrus buying companies. The farmer sells butternuts to local communities and the Johannesburg Fresh Produce market.

To substantiate the above, the trajectory of a cooperative farm (Emergent Farmers Enterprises Tours) is outlined. The cooperative owns 130 ha of arable land which was redistributed to individuals from the surrounding communities in the Ga-Maake tribal area in 1997.

Emergent Farmers Enterprises Tours cooperative is located in the Ga-Maake tribal area in Tzaneen. Members, former subsistence farmers from surrounding communities, received portions of the land/farm from the government through redistribution in 1997. The farm was previously utilized as a tea plantation by the former homeland government.

⁴ A pseudonym was used to protect the respondent's identity

A total of 17 people resettled on the farm which had been subdivided into equal portions/plots; individual farmers were given P.T.Os as form of land ownership. With the help of the ARDC, most of the resettled farmers grew rain-fed maize in their plots. The ARDC provided farmers with inputs, production finance, expertise as well as produce marketing facilitation. Subsequent to cessation of the ARDC in 2000, the resettled farmers could not manage to proceed with their farming ventures; the existing farming activities failed and most stopped operations. In 2008, the farmers formed the cooperative to which they all ceded their portions of land to farm collectively.

The cooperative entered into a contract to grow peppadew for a peppadew processor in 2008; the farmers collectively planted 72 ha of the crop. To facilitate this contractual arrangement, the peppadew processor became a “pseudo” strategic partner: the company injected funds, in the form of a soft loan, into the cooperative farm to enable them to install the required irrigation system; experts from the company supervised the growing of peppadew and its harvesting as well as marketing. The cooperative received a loan for production finance from the FNB; the peppadew processor acted as a guarantor for collateral purposes to enable the cooperative to access the loan.

3. Trajectories of smallholder farmers engaged into Production specification contracts

Mariveni Farmers’ cooperative owns a farm (320ha) in the tribal area near Litsetele in Tzaneen. It has twenty four members from neighboring communities who were each allotted an average of 10 ha of land through redistribution by the government in 1998. Currently, all members are equal shareholders of the farm as they have since ceded their plots to the cooperative.

The cooperative farm was initially run by the homeland government until 1992. Between 1992 and 1993 the government planted the farm with bananas (52ha) and citrus (145ha) before allocating it to individuals from the surrounding communities in 1998. These individuals applied for consideration to own a plot and were interviewed by government officials, agricultural department officials, community leaders and ARDC experts.

From inception, the new plot holders received generous support mainly from the ARDC, and partly from the Limpopo Economic Development Enterprise (LimDev), and the Limpopo Business Support Agency (LIBSA). The ARDC withdrew its support to the farmers in 2000 and the enterprises regressed to non-viable entities. Although these farmers received loans from the Land Bank to revamp their farming activities, they lacked farming skills and expertise.

Through government intervention, a tree and seedling company was engaged as a strategic partner to assist with the revival of the farm’s enterprises. The tree and seedling company injected some funds into the farm’s citrus venture and in order to effect sound management and viability, the Mariveni Farmers’ Co-operative was formed and registered in 2002. By acting as a guarantor, the tree and seedling company successfully facilitated application for a loan of about R 10.5 million to the DBSA by the cooperative. This money was used for farm

recapitalization and production. The cooperative also started planting peppadew on a contractual basis for a peppadew processor.

The tree and seedling company provided management expertise and trained the farmers on sound farming and citrus husbandry practices in order to boost production. Mariveni Farmers' Cooperative disposed of their citrus through SAFE and Dole while bananas go the open market. In 2008, the cooperative started planting butternut on contract with The tree and seedling company. The tree and seedling company pulled out of the strategic arrangement in 2009 and the cooperative has since engaged a citrus exporting company, The citrus exporter Citrus, in a contractual arrangement. Mariveni cooperative is Tesco's Nature Choice, GlobalGAP, and since 2008, Fair-Trade certified.

4. Trajectories of smallholder farmers engaged into Production management and market specification contracts

Seventeen farmers located in Tarentaalrand and surrounding villages of Tzaneen are collectively contracted to a supermarket to grow and supply organic vegetables. Only four of these farmers are currently supplying the contractor as they are able to meet the required vegetable quality standards and were the respondents thereof.

All contract organic farmers subscribe to an organic farmers association called Nkomamonta Organic Farmers. This association renders assistance to farmers through collective action in procurement of some expensive inputs as well as vegetable marketing. Organic certification was done collectively and all subscribing Nkomamonta farmers were certified under the guide of the association. Thus affiliation to an association determines the participation of farmers in this contractual arrangement.

Contract organic farmers were helped by an NGO named HIVOS, to transform from conventional to organic farming; HIVOS provided the expertise on organic farming methods; and helped the association of farmers with finance as well as facilitating certification. In addition to certification, HIVOS facilitated the liaison between farmers and a supermarket and The organic specialized agribusiness to effect the contractual arrangement. To this end, access to external support (financial or institutional) is important for participation of farmers in this contract.

Mr. Konke⁵ is one of the organic contract farmers. He was born in 1945 in Bushbuckridge in the Limpopo province and attended school in this area. Upon completion of primary school, Mr. Konke worked in various factories in Johannesburg. He later became a bus driver for PUTCO buses in Pretoria and a bus inspector with the same company.

Mr. Konke started operating grocery and hardware shops in Limpopo in the late 1990s. In 2000, he purchased a farm using his own savings and additional money borrowed from the Land Bank. The farmer planted maize and various vegetables which he disposed of locally

⁵ A pseudonym was used to protect the identity of the farmer

and in the fresh produce markets in Johannesburg and Pretoria. In 2003, the farmer started his conversion from conventional to organic farming methods after joining the Nkomamonta Organic Farmers' association. With help from HIVOS, Mr. Konke fully converted into organic farming and started supplying the supermarket on a contractual arrangement. Under Nkomamonta Organic Farmers, Mr. Konke supplies the supermarket with various organic grown vegetables; all packaging and labeling is done by the organic specialized agribusiness for all the contract farmers.

5. Trajectories of smallholder farmers engaged into Certified market specification contracts

Mr. Ngoba⁶ was born in 1955 in the Bushbuckridge area in the Limpopo Province. He was educated in the area and upon completion of school, he worked as a commuter taxi driver in Johannesburg and ran his own commuter taxi business until late 1990s. During this time, he also invested in grocery and hardware retail business in the Limpopo Province.

In 2001, Mr. Ngoba purchased a farm (22 ha) using partly his savings and a loan from the Land Bank through the land reform programme (LRAD) of the government in Tagnshoek area of Tzaneen. Mr. Ngoba assumed ownership of kumquat trees which had been left behind by the previous owner. Most of the trees required resuscitation in order to regain their productive state: the farmer bought kumquat tree seedlings from a tree and seedling company and the company assisted him with the necessary husbandry practices. He received help with the management of the fruit trees from another kumquat farmer in the Tzaneen area.

Mr. Ngoba disposed of all ripe fruit locally and to City Deep fresh produce market in Johannesburg. In 2003, Mr. Ngoba was linked to a citrus exporting company, the exporter, by the fellow farmer; the exporter assisted him with best management practices. In 2004, the farmer entered into a fruit management contract, which included marketing, with an exporter. The exporter assists the farmer with production advice and marketing of ripe fruit. Mr. Ngoba is not affiliated to any farmers' association or organization. The farmer has three tractors, a lorry, and a vehicle which are used in farm operations.

⁶ A pseudonym was used to protect the identity of the farmer

C. Determinants of agricultural income

A two-steps Heckman model was used in order to test whether contracts could improve farm incomes. The first step of the model (Table 13) is a probit model of the determinants of the likelihood that the farmers commercialize their produce or not. Indeed, it is obvious that if a farmer is not able to generate marketable output, he won't be able to participate in any arrangement; testing if contract farming is a determinant of the farm income is in that case irrelevant. The first step of the model thus shows that an education above primary level is an important determinant of commercialization. Furthermore, households that receive larger social grants and who do not have access to irrigation infrastructure are less likely to commercialize any agricultural produce, which also corresponds with the results of the qualitative analysis.

Table 13: Probit model of commercializing agricultural produce (0: no sales; 1: sales)

STEP 1 of Heckman model	Coefficient	Std. error	z-stat
Household size	0.052	0.063	0.83
Age of household head (yrs)	0.062	0.144	0.43
Age squared (yrs ²)	-0.0005	-0.001	-0.39
Gender of household head (1: male/2: female)	-0.638	0.556	-1.15
Secondary education or more (1: yes)	1.615	0.537	3.00***
Log social grants (R)	-0.293	0.168	-1.74*
Log remittances (R)	0.044	0.050	0.87
Rain-fed production (1: yes)	-0.926	0.459	-2.01**
Constant	1.524	4.138	0.37

Sources: authors

The second step of the model is a regression of the determinants of farm income (Table 14). The latter seems to be positively influenced by the number of active members on the farm, the level of specialization in agriculture, the size of the cultivated land and whether this land was acquired under private tenure or land reform. These determinants are all "classic" structural variables influencing farm income, as widely commented on in the literature. Further literature (Eaton and Shepherd, 2001; FAO, 2005; IFAD, 2003; Little and Watts, 1994; World Bank, 2007) confirms that contracts positively influence farm income.

Table 14: Regression results for determinants of agricultural income (dependent variable: log of income from agriculture)

STEP 2 of Heckman model	Coefficient	Robust std. error	z-stat
Household members active on farm	0.607	0.222	2.73***
Age of household head (yrs)	-0.012	0.013	-0.94
Gender of household head (1:male/2:female)	0.482	0.402	1.20
Probability of contract	2.016	0.881	2.29**
Log land size cultivated (log ha)	0.535	0.176	3.04***
Private land tenure (1:yes)	1.141	0.638	1.79*
Land reform beneficiaries (1:yes)	1.796	0.615	2.92***
Rainfed production (1:yes)	-0.203	0.500	-0.41
Constant	7.623	1.000	7.62***
Inverse mills - Lambda	-0.597	0.560	-1.07
n= 106			
Censored obs = 31			
Uncensored obs = 75			
Wald ch ² =130.65			
Rho=-0.443			
Sigma= 1.348			

Sources: authors

The analysis of the Heckman model confirms that farmers who generate higher farm incomes are also better endowed with respect to capital and production factors (land, private tenure, equipment, etc.). The qualitative analysis of farmers' trajectories suggests that these farmers engage in contracts for different reasons: i) the larger scale contract farmers are more concerned with ensuring stability in the flow of produce to specified markets rather than with accessing production factors, credit and other inputs as they already have access to these; this is specifically the case for commercial farmers who participate in either informal agreements or formal *marketing contracts*; ii) contract farming is 'part of the deal' for the smaller-scale emerging contract farmers who gain access to incentives and development programmes (Public-Private Partnerships, land reform programmes, other public incentives for rural development, small-scale enterprises and agriculture, etc.), as illustrated by the emerging farmers. In this case, contract farming is a *sine qua non* condition for the farming system which is largely based on public support.

Consequently, we cannot be sure whether the higher income of contract farmers are as a result of their participation in contracts or whether their participation in contracts are the result of having characteristics associated with higher incomes. Of course, determining causality is particularly difficult with our available data - and that is the reason why the qualitative analysis, in particular the trajectories and the development paths of farmers, is needed.

Moreover, our sample size is small and potentially unrepresentative at the national level. Although our survey was explicitly designed to try and provide for as representative a sample as possible in the selected rural areas, it is possible that the failure to participate in contracts by households in our survey may be the result of some characteristics not recorded by the survey, but associated with lower incomes, which would clearly introduce bias into our results.

D. Benefits and Threats of contracts for smallholder farmers

1. The Enhancement of Production Capacity - Empowerment, Access to Resources and Capital

In a context where high-value crops necessitate levels of input exceeding the financial resources of small-scale growers and where the State withdrew from direct production support, contract farming can play an important role in farmers' empowerment, access to resources, and capital provision. Interviews showed that small farmers were unable to fulfill by their own means or through the support of public bodies the costly requirements related to the production under standards and certification constraints. As such, the case studies showed that the contracts engaged in do enable them to access modern market channels in several ways.

Firstly, contracts enabled them to access to high quality citrus seedlings and adequate inputs. For instance, the small farmers of the Letsitele Project could access quality vegetal material allowing them to be able to provide adequate varieties and fruits for exports thanks to their linkage with the agribusiness. Although inputs had to be paid for, the related costs being deducted from their final payment it enabled them to access at the right moment and, thus, to treat the orchards, as required by the standards and certification procedures.

Secondly, contracts helped them to access loans and funds for production and for standardization of their production. The latter was facilitated through the agribusinesses provision of acceptable guarantees to banks. In addition, it enabled them to acquire additional inputs and to better establish themselves.

Thirdly, contracts also allowed them in benefiting from quality services. According to the farmers interviewed, technical assistance provided by the agribusinesses was frequent and of good quality, free of charge in both cases. It enabled them to rectify problems with citrus cultivation if any, and in some cases, with financial and administrative issues. In addition, contracts involved capacity building and skills transfers (from the private but also from the public sector – see later in this chapter). Thanks to the combination of all of these, contracts enabled them to produce fruits in quantity and in quality, to consistently supply their contractors, under the stringent requirements, by providing the tools for the production to reach the modern markets.

Consequently, contracts including both capacity building and services' provision –which are the core piece in the two case studies-, were therefore considered as positive instruments, in particular in a context of lack or insufficiency of public supports, a constraint clearly mentioned during the interviews. As such, contracts allowed farmers to be empowered, as they were not able by their own means to succeed in reaching standards and certification and in producing enough volumes without agribusinesses' support.

2. Market Access - Enabling to Compete with Large Growers

Besides the empowerment at production level, contracts do directly facilitate market access. The latter is of particular importance in South Africa, where it represented an implementation tool of the previous regime's segregation policies. Indeed, markets have officially been opened up to all South African producers without any distinction since 1994. However, in addition to the more stringent requirements, markets' restructurings kept the large majority of the doors closed to new entrants (in many cases, the public entities were privatized through the transfer of state ownership into private shares, mainly controlled by the then well established larger-scale (and thus white commercial) farmers) (Anseeuw, 2004).

As such, not only do contracts enhance small-scale farmers' production-bases in volumes and quality (already allowing them to compete with other farmers), they also open up market channels for the latter. In some cases, they were even being "empowered" as shareholders and participated (although partly) in governance and executive control of the agribusinesses, and consequently, in the decision-making processes related to the operating production and trade of their produces. This is the case in the Winterveld Project where the shares acquired by small-scale farmers since 2007 transformed their position from 'market users' to 'market makers'.

In addition, as high-value produces not only need to meet standards in terms of cultivation techniques, but also are required to be handled after they are harvested following strict procedures to ensure the high quality along the value chain, agribusinesses have a superior ability in terms of post-harvest handling, infrastructures, storage, and transportation access and management. As such, contracts enabled small-scale farmers to achieve the complex logistics issues with regards to the transportation of the produce from the fields to the packing houses and/or processing units, and to the harbor or the airports when the products are exported. Although the small farmers in both cases delivered citrus to the certified packing houses by their own means, exporters used specialized transport means to transfer the packaged fruits to the harbor or airports, helping to preserve high quality and to ensure traceability of fruits. One can note that labeling and traceability requirements, two major concerns in modern markets, are organized by the agribusinesses. This situation largely explains exporters' strict control over post-harvest handling and transportation. The final shipment to international markets is arranged by exporters which are also the only ones licensed for exportation by national authorities, what are not the small farmers. Exporters recoup their costs by deducting the requisite charges from the gross amounts prior to paying the farmers for any fruit consignment delivered.

3. However ... Transferring Control and Decision-rights over Production and Resources

Because of the aforementioned positive impacts, contracts have been widely promoted as a means of maintaining high productivity for small-scale farmers. In the South African citrus sector, it is often promoted as a 'strategic partnership', often representing a tripartite alliance between the farmers, an agribusiness and Government (DAFF), in which a contractual arrangement links the farmers to agri-businesses with Government as the mediator and (partial) fund provider⁷. It appears in the case studies that public action contributes to these transfers, in particular through public supports from the DAFF and/or the Department of Trade and Industry (DTI) in the context of Agri-BEE (Van Rooyen *et al.*, 2010). This is particularly the case when the small farmers were previously farm workers that benefited from land reform, where farms of high-value products are being or were transferred to local communities (Derman, Lahiff & Sjaastad 2006, National department of Land Affairs 2008). This situation is well illustrated by the Letsitele Project.

The positive aspect of this model relies on the cost- and productivity-effectiveness in managing large agricultural enterprises, in producing, as well as for harvesting, collecting, and trading the produce of a single unit rather than in numerous individual plots. In the case of the Letsitele Project, the historical review of the citrus yields clearly showed a significant turn-around in profitability and productivity since the undertaking of the management of the Mariveni and Mabunda co-operatives by the tree and seedling company.

For the agribusinesses, the control and decision-right transfers offer a new and lucrative opportunity to expand their commercial activities within the agri-food sector (access to land, direct engagement into production). It also allows them to adopt certain certification, such as Fair Trade certification and labeling system, for the promotion of their products⁸. However, these contracts engaging small-scale growers with agribusinesses in the South African citrus sector, in particular for the high-value channels, are often the closest arrangement to full vertical integration. They lead not only to the agribusinesses to provide a market outlet to the farmers, but also to manage the production at farm level, directly or indirectly. It results in the agribusinesses having major or even total control over production with the contract shifting most decision-rights and risks to them. In the Letsitele Project, the

⁷ Although the model occurs commonly all over South Africa, it has been promoted under an official programme, entitled the 'Strategic Partnership Programme' in Limpopo.

⁸ "In 2001, Capespan started to introduce a separate label for fruits produced at the farms involved in land reform projects. This label was called "Thandi" and was proposed for the certification of fair-trading products. According to the suggestion on Max Havelaar Netherlands, the inspection of "Thandi" Farm was certified in terms of the FLO Hired Labor Standard in 2002. The adoption of Fair Trade labels caused significant growth of sales amounts of their citrus. Such a great success of "Thandi" Farm raised strong concerns about Fair Trade labeling system among some producers, and they rushed to get certification of Fair Trade. At last, 19 producers were accredited under the FLO FT labels in 2003. Most of them are composed of large commercial farms, and others are Trusts/CPAs (Communal Property Associations), cooperatives, or assemblies of Trusts/CPAs, African group farms, and farm products' packers" (Ikegami, 2008).

tree and seedling company, and thereafter the citrus exporter, control the management of the two co-operatives, each as a single unit as it were a large-scale commercial enterprise.

In many cases, small-farmers do not control anymore the production, or any stage of the decision process. Although more integrated into the modern markets, one of the common characteristics of these arrangements is the remaining marginal position of the small-scale producers. The contractual arrangements between the small producers and the agribusinesses are often detrimental for the former. Land owners find themselves incorporated within production chains, in which they represent only an isolated element and on which they have no decision-making or orientation power. Generally, the technical capital used does not belong to them, but is made available by the management company. This situation does not only create a subordinated position for the farmer but also develops a dependency situation, since they become unable to withdraw from these production relations, without losing their access to the necessary finances and inputs. The transfer of autonomous family enterprises into the integration within an entrepreneurial structure modifies necessarily the relations with the agricultural activity *per se* (Anseeuw *et al*, 2011).

This situation highlights the need to fully interrogate the expectations, interests and motivations of the actors involved, and to question the sustainability of contracts, economically, politically and socially, and the relevance of the “empowerment” process.

4. Concerning only a few, already better established medium-scale farmers

The extent of contract farming in the region remains limited with only 36 farmers (34% of the interviewees) having at least one contract, whether verbal or in writing. Following our findings in the short survey, contract farmers represent less than 1.2% of the total number of farm households in the region. The limited extent of contract farming can be explained by the fact that, as shown by the typology analysis, the majority (54% of the interviewees) are micro or small-scale subsistence oriented farmers. As they do not participate in markets they are also excluded from contract farming, as confirmed in Table 3 which links the farm household typology with the participation in markets, contracts and the destination of the agricultural produce.

And besides these potential negative impacts, it is very important to mention that contract farming only concerns a very small proportion of farmers, especially when small-scale farmers are considered. This observation drastically lowers the efficiency of contracts as a broad based tool for market integration.

Quantifying the scale of contract agriculture, whatever the level of analysis, is extremely difficult. This is particularly the case when focusing on specific commodities (including citrus); the available data remains rather general. Furthermore, whereas some authors attempt to estimate the scope of its development in Africa (Grosh, 1994; Little and Watts, 1994), most studies in this respect focus on its impact at farm and household level (e.g., Bellemare, 2010a, 2010b; Maertens and Swinnen, 2009). In a study on contract agriculture

engaging South African agribusinesses, Vermeulen *et al.* (2008) estimate that almost 80% of the volumes of fruits and vegetables transformed by the South African processing industry (21% of the production) and between 70% and 100% of the produce sold in supermarkets were supplied under contract, while the meat and egg sectors favored full vertical integration (Vermeulen *et al.*, 2008). But the study also showed that only 5% of the contracts identified involved small-scale farmers with few suppliers. These results confirm the findings of previous studies which show that contract farming, for fresh produce in particular, usually implies a small number of producers, and a very few number of small-scale farmers. Table 15 estimates, for selected commodities in South Africa, the extent of contract agriculture, focusing on the participation of small-scale farmers.

Table 15: Extent of Contract Agriculture in South Africa for selected commodities

Sub-sector	# of farmers under procurement contracts	# of small-scale and emerging farmers under procurement contracts
Sugar cane	16 045	14 445 small-scale growers (8% of sugarcane production) + 385 emerging growers
Timber	50 000	15 000
Cotton	3 000	-
Processed fruits Snack and Nuts	2 709	209
All Fresh Fruits and Vegetables	3 430	278
Processed Vegetables	350	87

Sources: authors' compilation from Vermeulen 2008; FAO 2004, South African Sugar Association website, and NAMC/FAO 2009

While the Department of Agriculture (annual report 2009/10) estimates 40 000 commercial farm units in 2007 and 1.2 million small-scale farms in the former homelands, the extent of the participation of small-scale farmers in contract agriculture appears insignificant, in particular for high-value and fresh produces. In that context, the effectiveness of contracts in integrating small-scale farmers into modern markets can be questioned. This is confirmed by a recent research study on contract farming implemented in the broader regions surrounding the Letsitele Project where contracts were identified and characterized, including in other value chains than citrus (Fréguin-Gresh *et al.*, in review). That study showed that only a few farmers, of which small farmers of Mabunda and Mariveni co-ops, were contracted with buyers: only 36 farmers were engaged in at least one arrangement, whether verbal agreements with local merchants, wholesalers, supermarkets, or processors, or formal written contract with agribusinesses. Following the estimations of the authors, the contracted farmers represented less than 1.2% of households in the region (Table 16).

Table 16: types of farm households and participation in markets in the Greater Tzaneen Municipality, Limpopo

	n	% of the sample	% of the farm HHS in the study area	% of the group under contracts	Types of buyers	Types of contracts
Micro-farmers cultivating residential gardens	15	14.2%	53.8%	0%	No sale	No contract
Subsistence small-scale farmers combining staples and vegetables	28	26.4%	39.6%	0%	No sale	No contract
					Spot markets	
Small-scale producers of staples and F&V for local markets	6	5.7%	4%	0%	Spot markets	No contract
					Local merchants	
Medium-scale producers specialized in F&V production for the local and domestic markets	24	22.6%	1%	57%	Local merchants	No contract
					Fresh Produce markets intermediaries	No contract
					Local restaurants	Informal marketing agreements
					Supermarkets	No contract or formal organic production-management contracts
					Processors	Informal marketing agreements (mango) or formal production-management contracts
Emerging industrial chicken, and F&V producers	16	15.1%	0.2%	100%	Local merchants	No contract or informal gentlemen agreements
					Local road-side stalls	Informal gentlemen agreements
					Fresh Produce markets	No contract or informal marketing agreements
					Supermarkets	Formal organic production-management contracts
					Local processors	Informal agreements or formal production-management contracts
					Exporters	Resource provision contracts
Extensive commercial farmers, producers of fruits mainly for the domestic market	11	10.4%	1%	27%	Local merchants	No contract
					Fresh Produce markets	No contract or informal agreements
					Local processors	Informal agreements
					Exporting agents	Formal market-specification contracts
Intensive commercial producers of fruits and vegetables for the domestic and export markets	6	5.7%	0.4%	50%	Local merchants	No contract or informal agreements
N	106	100	100	1.2%		

Sources: authors

Box 3: Household Typology – The case of Tzaneen

From the 106 households interviewed, eight types of farming systems were identified (Table 2). Four criteria were used: (i) the size and the type of land (garden, communal area, private land); (ii) the commercialization of agricultural products, included the buyers (spot markets, local merchants, supermarkets, processors, export agents) and the destination of the products when sold (local, domestic, export markets); (iii) the combination of crops and livestock (share of staple food, of fruits and vegetables, of livestock in the farm production value) and asset endowment (equipments, irrigation systems etc.) and (iv) access to and the importance of off-farm income.

** Micro-farmers cultivating residential gardens for self consumption, depending on off-farm incomes (n=15)*

The micro-farmer group is very heterogeneous in terms of livelihoods. These mostly female headed households implement survival strategies to cope with very low incomes and take any opportunity that allows them to improve their livelihoods such as small irregular jobs in the service sector in the community, casual agricultural labor, social grants and remittances (with the younger, active population often having migrated). However, despite engaging in these diverse activities, these households hardly succeed in generating an income above the poverty line. In terms of farming, they have no or very poor access to land and consequently rely only on the cultivation of residential gardens. They combine starchy staples and vegetable production for family consumption, producing only during the rainy season due to a lack of access to irrigation water. As a result, farming activities are limited and contributes only marginally to this group's subsistence (21% of global income). With insufficient access to assets and insufficient production, this group is mainly excluded from markets and farming provides only a basis for food security.

** Subsistence small-scale farmers depending on off-farm income, combining staples for self-consumption and vegetables for local markets (n=28)*

The second group consists of couples composed of a retired person and an active person engaged in a permanent activity (small business). Social grants or off-farm income was invested in an irrigation system which provides water for domestic use, for the sale of drinking water to the community and for irrigation purposes (manual only). Unlike the micro-farmer group, these households have access to a plot of arable land in the communal lands (on average one hectare), allowing them to cultivate staples and vegetables and to keep an orchard (mangoes). They also have a small herd of cattle that graze on communal land and fatten pigs. The produce is sold on spot markets within the community or to local merchants. The farming activity allows them to have food and a financial basis but for most of them, farming is not considered to be a productive activity (17% of total income). They furthermore have no investment capacity and heavily rely on social grants for their subsistence.

** Small-scale producers of staples and fruits and vegetables for local markets, depending on off-farm activities and social grants (n=6)*

The third group combines small-scale farming (28% of global income), off-farm activities (taxi, small business) and social grants, which represent a significant part of their income (34%). Off-farm income, invested in an irrigation system, has allowed them to develop a marketable all year round vegetable production. These households have access to a plot in the communal area (average size 1.8 hectares) which they cultivate in addition to a garden. Products are sold on spot markets or to local merchants. For this group, farming is a productive activity and the basis of their livelihoods; they would like to develop their farming activity if their constraints can be overcome (limited access to resources, lack of credit, difficulties to collect and transport their products to markets etc.).

** Medium-scale producers specialized in vegetables production for the local and domestic markets (n=24)*

These households are better endowed (largest plots in communal lands) and due to more efficient infrastructure (private borehole, irrigation systems, tractor and private vehicle) they were able to develop a marketable vegetable production (up to three cycles per year) which they sell to local merchants, to fresh produce markets or under formal contracts to supermarkets (organic production-management contracts), to processors or restaurants (marketing contracts). As a result of successful but expensive practices, farming has become the pillar of their livelihood (67% of total income), the rest being non-farm sources. Farming is a profitable means of existence to them but without the massive support or the opportunities from which they benefitted on the basis of their personal social networks in order to access both production factors and market opportunities, or both, they would not have been able to develop this activity.

** Emerging industrial chicken and vegetables producers (n=16)*

These households are specialized in intensive vegetable production under management production contracts with agribusinesses and/or industrial broiler production under resource providing contracts with a local agribusiness (The chicken processor). Agriculture is their only economic activity. The viability and the sustainability of this specialized and intensive but expensive farming system is questionable, both in agro-ecological as well as economical terms. It is not clear if the farmers engaged in this production system would have had the means to invest and renew their equipment and to develop an economically sustainable activity without massive external (mostly governmental) support.

** Extensive commercial farmers, producers of fruits mainly for the domestic market (n=11)*

Extensive commercial farmers combine an independent or a qualified permanent off-farm activity and managerial farm requiring numerous workers. They are well equipped with an operational irrigation system and a tractor. They have specialized in extensive mango production (low use of inputs and workforce). Mangoes are usually harvested green to be delivered to local processors or sold ripe to merchants, fresh produce markets or exporting agents. Some of them have contracts (marketing) which are usually verbally concluded.

** Intensive commercial producers of fruits and vegetables for the domestic and export markets (n=6)*

The households of this last group are specialized in managerial farming. They have developed an intensive (in terms of labor, capital and inputs) production of fruits under irrigation. They own tractors, greenhouses, warehouses and a packing unit each to satisfy the requirements and the standards of their buyers (local merchants, processors, fresh produce markets and exporting agents) with whom half of them have various types of contracts (mostly marketing but also production-management contracts). Their activities are concentrated on large areas of private land. They combine their production activities with extensive cattle breeding on private pastures.

Sources: authors

Table 17 also presents the distribution of the six types, based on a shorter survey conducted among a larger number of farmers in the study area (n=239). The resulting distribution differs from the one based on the long survey. The micro-farmers seem to be the largest group (53.8%) followed by subsistence small-scale farmers (39.6%). From the 106 farmers in the analysis that participated in the long interview, medium-scale farmers (1%), emerging industrial chicken producers (0.2%) and intensive (0.4%) and extensive (1%) commercial farmers seem to be overrepresented.

The very same results showed that out of these 36 farmers under contracts, very few of them were small- and medium-scale farmers. The majority of the identified contracted farmers were large-scale commercial farmers (still predominantly white). The smaller farmers under contracts had access to 57 ha up to 70 ha per farm on average, mostly either communal or redistributed land. The majority of South Africa's farmers, indeed small-scale, remain excluded.

Table 17: Typology of households (%)

	n*	% of the sample	% of HH** in area
Micro-farmers cultivating residential gardens for self consumption, depending on off-farm activities, remittances and social grants	15	14.2%	53.8%
Subsistence small-scale farmers depending on off-farm income, combining staples for self-consumption and vegetables for local markets	28	26.4%	39.6%
Small-scale producers of staples and F&V for local markets, depending on off-farm activities and social grants	6	5.7%	4%
Medium-scale producers specialized in vegetables production for the local and domestic markets	24	22.6%	1%
Emerging industrial chicken and vegetables producers	16	15.1%	0.2%
Extensive commercial farmers, producers of fruits mainly for the domestic market	11	10.4%	1%
Intensive commercial producers of fruits and vegetables for the domestic and export markets	6	5.7%	0.4%
n	106	100%	100%

Notes: *Number of detailed questionnaires to a random group of respondents allowing for the capturing of the diversity in household types. **Based on the results of the 239 short interviews conducted and being representative of the population in the study area.

Sources: authors

E. Concluding comments – Contract farming facilitates market access, but only reaches a few, better off farmers

Some major trends regarding the characteristics of the contract farmers of our project can be highlighted. Contract farmers seem to have smaller households and are led by younger heads (mostly male); they have better access to land, mostly under private tenure or in land reform schemes and all of them have access to irrigation, with higher agricultural incomes. The econometric model finds that land size increases the probability to engage in contracts while the share of off-farm income in the total income decreases this probability.

From the results, it can be concluded that contracts:

- enhance production capacity for smallholders, through empowerment, access to resources and capital;
- facilitate market access and enables smallholder farmers to compete with large growers.
- However the results also show that contracts:
- often imply the transfer of control and decision-rights over production and resources to the agribusinesses;
- and, more importantly, concern only a few, already better established medium-scale farmers.

Although the (econometric) results do not allow to analyze whether the higher income of contract farmers is as a result of their participation in contracts (or whether their participation in contracts are the result of having characteristics associated with higher incomes), the trajectories of the farmers show that all of the smallholders in contracts were better endowed (financially/natural resources) or benefited from substantial public support.

Related to the latter, the qualitative analysis of the typology of farmers as well as of their trajectories suggest that in all cases, large-scale as well as smallholder emerging contract farmers, public incentives and supports were significant – if not the major determinant in accessing resources, capital, and subsequently contracts.

CHAPITRE 6 - FACTORS AFFECTING THE LIKELIHOOD OF ESTABLISHMENT, THE EFFECTIVENESS, AND THE SUSTAINABILITY OF CONTRACTS BETWEEN SMALL FARMERS AND AGRIBUSINESSES

Not all the farm produce exchanges are convenient to the implementation of relations between producers and agro-industrial companies. The costs related to contracts, for both parties, should be compensated by the benefits, at least for one of the parties, in order to decide to establish a relationship. The cost of realization of a transaction between a buyer and a purchaser (in our case, an agro-industrial company and its supplier, the agricultural producer) are commonly referred to as transaction costs. In the abundant literature which frame its analysis on transaction costs, usually used to understand the choices of establishing (or not) a contractual agreement between an agricultural producer and an agro-industry, certain factors are put forward to explain the nature and the intensity of the established relationships, in particular the investments and the uncertainty which companies and producers are ready to grant. The transaction costs increase generally with the intensity of the relation (i.e. with the level of vertical integration) within a value-chain. In addition, the analysis of the need for contractualisation presents indicators on the factors influencing the nature and the intensity of these relationships. From our case-studies, and as confirmed by Minot (2007), cited by Eaton et al. (2008), three types of internal factors can be identified. However, in addition to the latter, several external factors have a significant role in explaining the relationships between producers and agribusinesses.

A. Internal factors

Besides the reduction of transactions costs, certain internal factors – internal to the production and processing process - explain why in certain cases contractual arrangements seem more or less opportune. Three internal factors can be identified: 1) the Type of product, 2) the nature of the enterprise, and 3) the destination of the product. The three strongly interrelated, internal factors are directly related to the classification of the contracts identified and presented in chapter 4.

The case studies clearly illustrate the ability to plot actual transaction and contracting characteristics with the governance form agreed upon by the different parties. The actual governance form can then be compared and moved along the vertical co-ordination continuum of managed coordination.

1. Type of product / product specificity

Literature details several factors implying on the establishment and sustainability of contract farming: (i) Perishability: if one cannot store and needs to find a market; (ii) Bulkiness: high value per unit and economic to transport; (iii) Permanence and mutual assets specificity: growers of permanent crops and trees and agribusinesses specialized into specific products (in particular for processing) cannot abandon their activity from one day to another and are locked into relationships with their buyers or suppliers; (iv) Technical and processing: need for specific technical production-related innovations and/or complex processing create dependence which can be exploited by agribusinesses; (v) Variations in quality: contracting encouraged where crop production varies in quality and quality within time is important for processing (adapted by authors from Goldsmith, 1985; among others). Many of these factors are directly related to the product characteristics and processing process.

As such, as well detailed in the analyzed contracts, contractual arrangements are more probable when farmers have to invest significantly in (human, physical, financial) capital, or when they have to resort to particular inputs to improve the quality; contracts can supply them incentives and the means to realize these investments. Furthermore, perishability increases the need for the farmers and the companies to coordinate the calendar of harvest and delivery. The power of negotiation of the producers is seriously weakened when the product is collected(harvested). Finally, when the producers cannot produce because of complex technological procedures, absence of technical skills, or difficulties of access to intrants and/or to necessary credits, companies can supply the technical support, the adapted inputs and the credit facilitating the implementation of the production.

2. Nature of the enterprise

The nature of the company which potentially organizes its supply through contracts is directly related to the type of products evoked above. The agro-industrial companies engaged in the transformation and/or marketing of high value-added products, of perishable products and of products which require knowledge and specialized skills, are the most susceptible to make a commitment in processes of vertical integration with producers.

As the implementation of such a relationship implies high fixed implementations costs (which should be covered by the decrease of the transaction costs), it is generally not feasible for "traditional" operators (manipulating small volumes of products) to commit to such agreements. On the other hand, large transformation companies, exporters, or distributions chains/supermarkets – dealing with important volumes of products – can privilege contractualization in order to guarantee a regular and reliable flow of raw materials and maintain a high rate of factory capacity use. It is particularly the case in the citrus sector, where

processing factories are engaging smallholder farmers on a contractual basis in order to assure their provision in raw materials.

3. The nature of the market

The third factor influencing the nature and the intensity of the relationships between producers and agro-industries is the type and nature of the outlet market (product destination). The most sensitive markets to quality, including in terms of food hygiene, urges companies to increase the control over the production process. Typically, when products are intended for export towards developed countries or when they are sold in high value-added circuits at the local level (in particular supermarkets, often with high capitalistic structures including foreign capital), companies (exporters, supermarkets, but also sometimes transformers) tend to vertically integrate, if not internalize, the production.

As such, fruits and vegetables intended for export markets are usually produced under contract. This situation is perfectly illustrated by the example of the small producers of citrus fruits of the project Letsitele which export, under certification, their products towards the European countries according to strict specifications and under the management of the citrus exporter. Often, the same product can be sold through various types of contractual, more or less integrated, arrangements, as it is the case for the producers of WUFA that have several outlets for their citrus fruits (processor, local supermarket, informal retailers / collectors).

B. External factors

The case studies presented earlier show however that several external factors also do play a significant role in establishing contracts between small farmers and agribusinesses. The paramount factor is related to public support (by any institutions supported by public or donor funds). Without this support, it seems unlikely for South African small farmers to engage in contracts with agribusinesses. Other factors – some of them directly or indirectly related to the previous one – are ii) private governance through norms and standards, iii) the historical legacies and the agrarian structure conditioning the means and production factors available to farmers; and, finally, iv) collective action and the capacity of the initiator of the linkage to screen-up and establish/mobilize a network -whether it is the private firm, a public body, or the farmer.

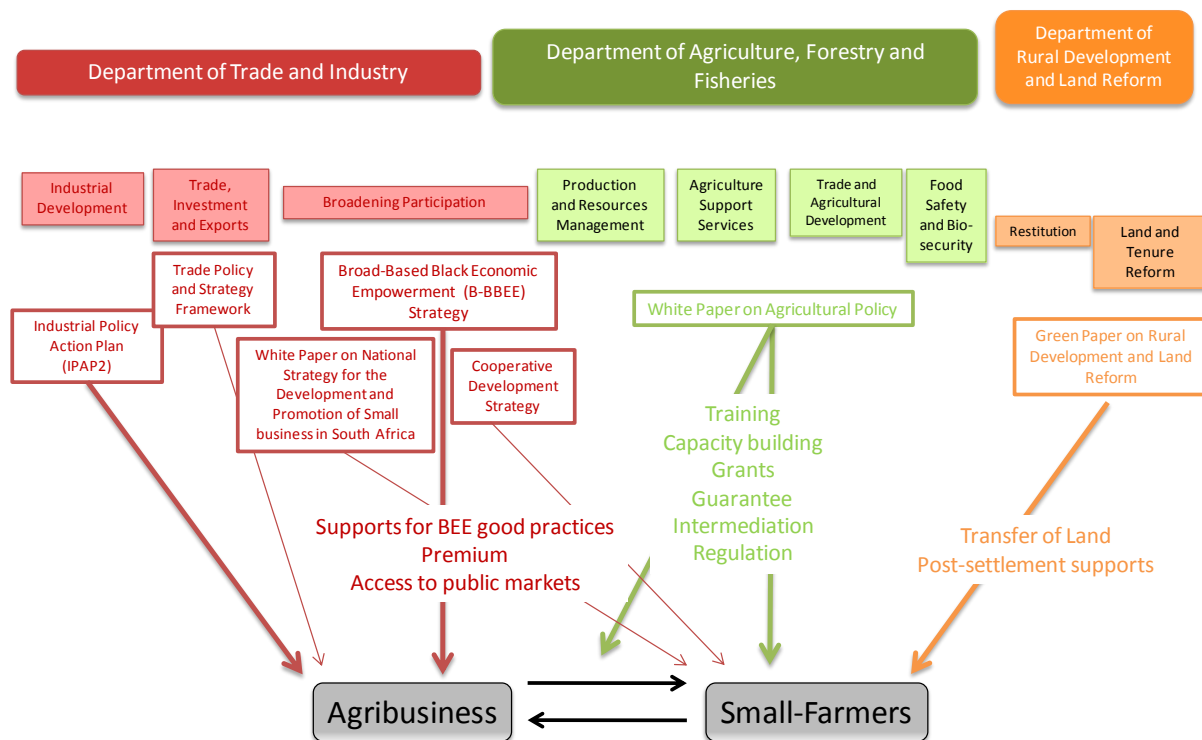
1. The institutional framework - Public incentives enabling Contract establishment and implementation

Although the role of the state has officially decreased in the past decades, public action is still strongly influencing agriculture overall, and therefore the market linkages between small farmers and agribusinesses in particular.

In all our cases, the farmers engaged in contractual arrangements - with the exception of the large scale farmers (but who benefited from significant public assistance during the apartheid period apartheid) - had in one way or another received public support. Indeed, one of the main characteristics of the farms connected to agribusinesses is their access to public supports.

In a context where poverty remains highly concentrated, both socio-economically with high inequalities, and geographically within the rural areas with the former homelands and the previously disadvantaged communities being particularly affected, the government developed various policy frameworks and programmes for supporting the development of the small-scale and emerging (black) agriculture (National Department of Agriculture 2011). The White Paper on Agriculture (1995), BATAT (1995), the Strauss Commission Report of inquiry into the provision of Rural Financial Services (1996), and the Strategic Plan for South African Agriculture (2001) all explicitly grapple with the challenges agricultural support generally and post-settlement support in particular and refer to the need for enabling conditions for the emerging farmers/land reform beneficiaries. This culminated in 2004 with the announcement by the Minister of Agriculture and Land Affairs that a provision of R210 million had been made for the initial rollout of the Comprehensive Agricultural Support Programme (CASP) (Department of Agriculture 2007).

As such, the role played by public institutions regarding contracts between the two parties, during the implementation phase leading to contract agriculture and/or after it has been up taken, are significant – in number of different types of support programmes and in significance of the different programmes (Figure 12).



Source: authors

Figure 12: The current institutional environment of Contract Agriculture in South Africa

Tools are multiple and aim mainly at the small agriculture(farming), but also take the shape of subsidies with the agri-businesses to facilitate their commitment with the small agriculture(farming) (ex: Agri-BEE). At the national level, the support policies, stemming from three different departments, can be grouped as following (see Table 18):

- supports in the development generally farms (measures of accompaniment stemming from departments of agriculture(farming) or from land(basic) business'affairs), facilitating the access to the land tax, the development of individual infrastructures, access to the credit has improved(credited) rate, etc.); or
- the accompaniment of the access to the market and the relations of these exploitations(operations) with the agri-business (Measures stemming from the Department of the business and from the industry, often making the link with between the small producers and the agri-business by facilitating them and by supporting(bearing) financially).

Table 18: Groupings of domestic public policies small-scale contract farmers benefited from in south Africa

National Department of Rural Development and Land Affairs	SLAG – Settlement and Land Acquisition Grant
	LRAD – Land Reform for Agricultural Development
	PLAS – Proactive Land Acquisition Strategy
	LARP – Land and Agrarian reform Programme
	SIS – Settlement and Implementation Support
National Department of Agriculture (NDA)	Marketing of Agricultural Products Act, 1996, no.47/1996
	Comprehensive Agricultural Support Programmes
	Farmers Development Programme / Act
	Food Security Programme/Act
Department of Trade and Industry	Co-operative Act
	Broad-based Black Economic Empowerment Act, 2004
	Accelerated and Shared Growth Initiative for South Africa

Source : auteurs

From the farmer's side, Government intervenes directly in the provision of production factors, mainly during the establishment phase (in its framework of support for previously disadvantaged farmers). This is particularly true in the case of the land reform beneficiaries. For example, regarding the citrus sector where a great majority of the farms involving small-scale growers (See the Winterveld and Letsitele cases) results from land reform: on 68 citrus farms incorporating small-scale growers documented by the CGA, 21% are on state land that has been redistributed or resituated to local communities, 18% are on an equity shares or joint venture models (i.e. private farm which capital has been sold to former farm workers through land reform), 12% are owned by the Land Bank, and only 3% are on private free-hold land tenure.

In addition, small farmers engaging in contracts also accessed public funding and loans from institutions such as the Land Bank, through micro-finance programmes (MAFISA for land reform beneficiaries, but also others programmes for black farmers implemented by the National and Provincial DAFF), or the CASP (which provides grants for infrastructural development during the settlement phase). Furthermore, farmers can also benefit from technical support and capacity building facilities. As such, they can benefit from the industry focused farmers' training programmes, the training of black farmers in agricultural marketing programmes, and programmes to strengthen compliance and implement national regulations to ensure compliance with plant and animal health, bio-safety and bio-security regulations, and the effective regulation of agrochemicals. These public supports all fulfill government's social, economic, and political objectives to promote the previously disadvantaged farmers, even though the system and the institutions providing them are often riddled with recurrent failures and have been severely criticized for not carrying out these operations with sufficient technical and primary institutional systems.

More concretely, as an example, the Letsitele citrus project in Limpopo benefited from public incentives through:

- Gazankulu Development Corporation = provided management of production and commercialization;
- Agricultural Rural Development Corporation (ARDC) = provided management of production and commercialization;
- Limpopo DAFF, Department of Land Affairs, Land Bank = implemented land reform programme and allowed small farmers accessing land and irrigation schemes;
- Limpopo Provincial Government = rehabilitated irrigation schemes (post-settlement supports);
- Limpopo DAFF = provided post-settlement supports and provided supervision, guarantees and supports that lead to the signature of a management arrangement with The tree and seedling company that in turn, facilitated funding and loan access (among others from public bodies such as the DBSA) and marketing contracts with other private agribusinesses (exporters);
- Perishable Product Export Control Board, the Limpopo Economic Development Enterprise, the Limpopo Business Support Agency, the British Department for International Development (through its ComMARK programme), and the European Union (through its Local Economic Development programme) = provided funding and supports to the farmers;
- Also nothing was mentioned during the interviews, one can assume that DTI provided incentives to the agribusinesses as they complied with AgriBEE rules (indirect benefits, for instance in accessing to public markets, etc.).

The Winterveld project benefited from:

- DAFF, Tshwane Metropolitan Municipality, National Development Agency, Tshwane University of Technology = provided capacity building, training, skills transfers, and funding to the small farmers enabling them to standardize their production;
- Also nothing was mentioned during the interviews, one can assume that the Department of Trade and Industry provided incentives to the agribusinesses as they complied with AgriBEE rules (indirect benefits, for instance in accessing to public markets, etc.).

On the other hand, for competitive agribusinesses, although contracting small-scale black farmers is potentially very risky, they do also benefit from incentives from public institutions. The most prominent policy encouraging linkages between agribusinesses and small black farmers is the *Broad Based Black Economic Empowerment* (BBBEE) policy, an affirmative action

policy, through its agricultural component (AgriBEE) Transformation Charter, jointly implemented through DTI and DAFF. Based on a scorecard, business classified as BEE benefit from subsidies and government contracts – used as incentives by the State to promote inclusiveness. Within the framework of this study, one AgriBEE recognized activity is the procurement of agricultural goods from black farmers, within the broader engagement of the agribusiness in rural development. Other components are black ownership, management and control within the agribusiness, employment equity, skills development, and corporate social investment. The transfer of company shares of the juice processor to contracting farmers fit entirely in this framework. From interviews with agribusinesses in the two case study regions, it is clear that the AgriBEE policy and benefits represent a major – even the major - incentive for agribusiness to enter into contracts with small farmers. In addition, it is generally promoted by the companies as part of their Corporate social Responsibility duties and used as Fair Trade promotional marketing. This is the case for both the citrus exporter and the juice processor, and other South African agri-businesses, who advertise their linkages with small (black) farmers, and their AgriBEE scorecards on their website.

Regarding the links between farmers and agri-businesses, government also acts as an intermediate. These interaction occur in both direction: government often initiates the contacts between the two partners, by bringing in the agribusiness (It is the case of the Letsitele project) or initial contacts between farmers and agribusinesses might initiate further public support – enabling a public-private virtuous circle (it is the case in the Winterveld project). In both cases, besides direct (financial) support, government engages in the negotiation, establishment and monitoring of the contractual arrangements (in both Letsitele and Winterveld cases in different degrees and different forms). It can also intervene as mediator when conflicts or contract breeches occur. Other policies assist the contract formation and ensure standards are kept at the required level. For instance the Trade, and Agricultural Development, and Bio-Safety and Bio-Security Policies try to find workable solutions to link small-scale and emerging farmers to modern market channels by promoting and engaging small farmers into strategic partnerships / monitoring by large scale farmers initiatives. Also, the Cooperatives Development Initiative encourages farmers to form cooperatives making it easier for them and the agribusiness to form contracts and do business.

Since the country's agricultural sector is de-regulated, South Africa is encouraging small farmer integration through the already very well established and competitive commercial agricultural and agribusiness sector. Although this mechanism may be very indirect at this stage, it is believed that it is the way forward to promote the small farmers into commercial farmers. As stated by van Rooyen *et al.* (2010), *“there is clearly no need for the state to establish parallel institutions and funding schemes that bypass the current systems of commercial agriculture. The state (and for that matter all its agencies such as the land bank) could improve the efficiency of*

delivery to targeted farmers by utilizing the services, financial systems and monitoring process of agribusiness to ensure the timely appropriate use of state funds". On contrary to what the deregulation process of the agricultural sector might imply, the State is still very present and active in the support of agriculture, particularly regarding the support for small-scale farmers, but through which large agribusinesses are also benefiting directly and indirectly. In the South African case characterized by an extreme duality of the agricultural sector, it seems that these benefits are the primordial (only?) incentives for the agribusinesses to engage in a more structured way with – and thus providing longer term perspectives for - small farmers.

The model bears several questions however. On one hand, the financial sustainability of such a development model is yet to be seen. On the other hand, the ability to replicate this model to other African and developing countries is certainly to be questioned.

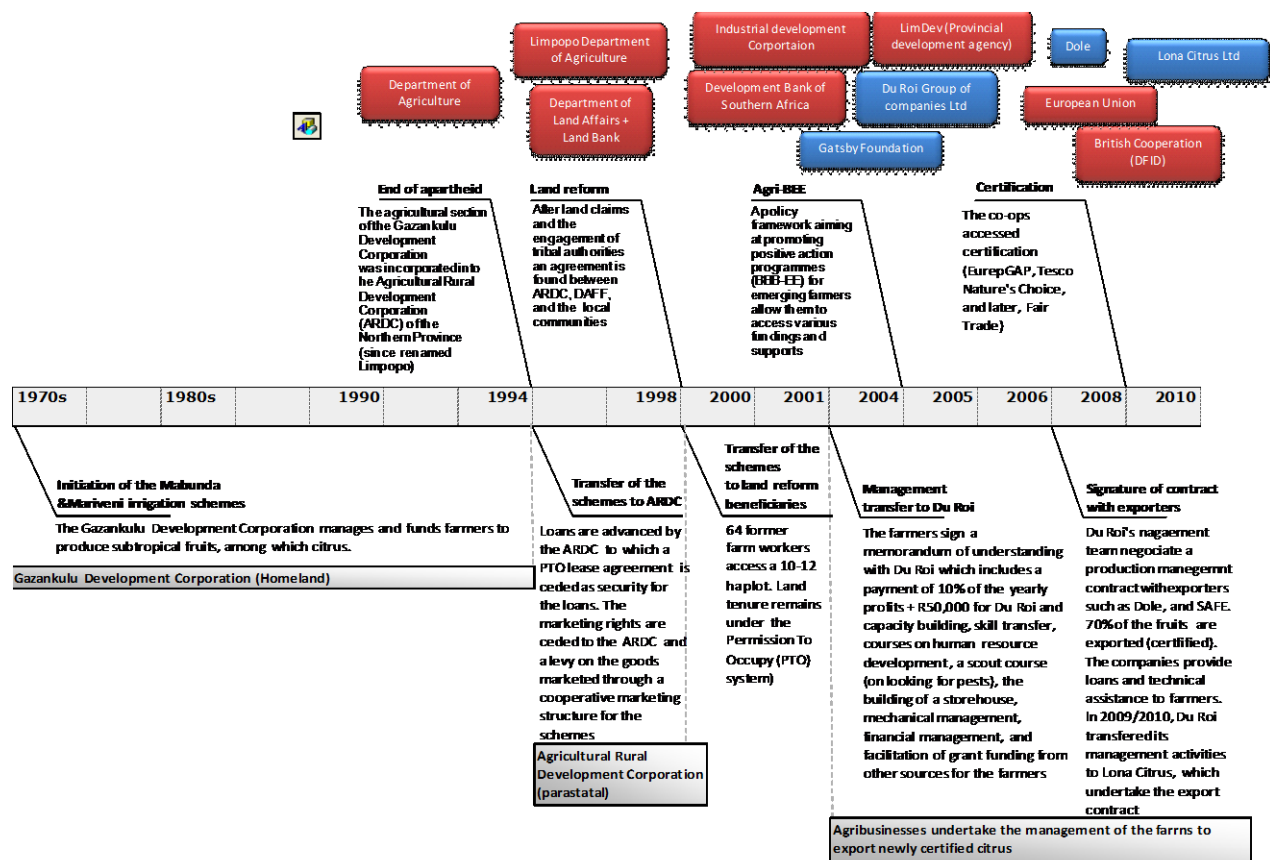


Figure 13: Example of the importance of public supports regarding the integration of small-scale farmers with agribusinesses in South Africa (the case of the citrus value-chain)

Source: authors

1. Private governance through norms and standards

In parallel - or in answer to the liberalization, to the deregulation and to the restructuring of the farming sector and markets, questions relative to the safety and the quality of food (in particular for fresh products) appeared and gradually modified the governance of the value-chains. Indeed, the concerns of the consumers in terms of contamination of food, pesticides, etc. urged the public authorities of developed countries and actors of the different value-chains to adopt strict regulations regarding standards and norms according to which food has to be produced and marketed (Jaffee, 2004; 2011). In this context, international agribusinesses establish their own protocols and impose their suppliers to respect them (Dolan and Humphrey, 2000). These protocols have led to strict standards and norms, sometimes even more rigorous than the requirements of the national regulations (Okello and Swinton, 2007).

In South Africa, the concerns regarding the quality of products, in particular fruits and vegetables, have their origins at the beginning of the XXth century, leading to inspections of products for export to become generalised due to the increase of exports. In the 1980s, the standards and norms became almost compulsory for exports. They are related to production techniques, processing practices, residues of agrochemical and sanitary products, and more recently to environmental and social considerations in the production and processing processes, and are to be put in connection with the changes related to the new world food demand models (Vermeulen and al 2006). These standards have become the rules which govern the marketing of products, in particular for the export markets, and, consequently, the farmers' capacity to answer and to produce according to these standards determines the level of access to markets.

Various non-legislative private standard schemes have been implemented by the retail industry in the OECD countries. All standards are certified and audited on a regular basis to assure compliance. The most important ones are summarized below (See Box 5).

Box 5: Various non-legislative private standard schemes implemented by the retail industry in the OECD countries – affecting South African private governance structures - according to Jooste and al. (2008)

- *HACCP: HACCP stands for Hazard Analysis Critical control Points and was developed for the aerospace industry in the US. Principles of the food hygiene system have been adopted in legislation in the EU and the US. HACCP is a systematic preventive approach covering all aspects of food safety during processing.*
- *International Food Safety (IFS): This management system was developed in 2002 by German retailers, and has been implemented in a few other European countries. The system can be applied to all steps of the processing of foods, subsequent to their agricultural production. The following issues are addressed in the standard: management of the quality system, management responsibility, resource management, product realization and measurements, analysis and improvements.*
- *EurepGAP: The working group of mayor European retailers (Eurep) developed a framework for Good Agricultural Practice (GAP). The objective of this widely used framework is to increase food safety based upon reliable agricultural production methods. Various product specific protocols and verification procedures have been developed by the working group. Eurep represents the leading European food retailers, and is therefore a very important international standard.*
- *ISO9000 / ISO14000: The International Organization for Standardization (ISO) is the largest developer of standards. Principally the standards are technical by nature and aimed at a variety of organizations, like businesses and governments. The objective of the standards is to make the development, production and supply of products and services more efficient, safer and cleaner. The ISO 9000 standard specifically targets the development and implementation of a quality management system in an organization. This is achieved by standardizing procedures and working methods of the whole system. The ISO 14000 standard is an environmental management system that is integrated in the policies and goals of the organization. Both standards are certified and audited on a regular basis.*
- *British Retail Consortium (BRC): In 1998 the BRC developed a standard on food safety, hygiene and quality applicable to the food processing industry. The aim of this system is to set requirements for processed and prepared foods through incorporation of HACCP, ISO 9001, traceability and environmental standards. The standard is mainly required in the UK but some retailers outside the UK are also starting to require BRC from their suppliers.*
- *Safe Quality Food (SQF): This food management system was developed in Australia and was later introduced in the US. The system's aims at enabling all actors in the food chain to assure food safety, HACCP principles, traceability, quality in a cost effective manner. The system relies heavily on HACCP principles on food hygiene and ISO 90000 principles. Two*

standards, namely SQF1000 for primary sector and SQF2000 for processed products have been developed.

- *Organic labels: Apart from legislation that regulates the determination and labeling (EU Organic Farming Label, USDA NOP) of organic produce, various private labels exist, e.g. Demeter, Ecocert, Bio-Siegel, as proof of compliance with organic principles.*
- *SA8000: This is one of the well-known voluntary global standards to ensure social accountability. The codes of conduct define social accountability as well as the requirements for a management system. The standards are based on the conventions of the International Labor Organization (ILO).*
- *Various retail, non-sector or country specific or codes of conduct like: Nature's Choice, EKO, Max Havelaar, Fair Trade, Business Social Compliance Initiative (BSCI), Agriculture Biologique (AB), Total Quality Management System (TQM), Qualität und Sicherheit (Q &S).*

On one hand, some of these standards are implemented and imposed by international institutions, such as international NGOs, donors and other stakeholders of the developing countries' agricultural and rural sectors, and play a role in the establishment of relations between farmers and agribusinesses. Although these relations are not well developed in South Africa (in number of producers involved - see previous section), these institutions facilitate the implementation of contracts, in particular regarding export markets. As illustrated by the project Letsitele, this situation can be analyzed within the framework of the fair trade certification processes, frequently implemented within land reform projects in South Africa (Ikegami, 2008). Although the authenticity of these certification models is sometimes disputed (Fouilleux, 2010), the beneficiaries engaged in these production systems can be accompanied by these institutions during the process of standardization (technical supports, credits, etc.) and benefit from price premiums related to the commercialization of the certified products. These initiatives of certification also supply effective platforms to organize the coordination between certified producers.

On the other hand, it has major implications at national level. These international standards and norms are translated at the level of the national regulatory framework – reinforcing national legislation (Figure 14). The South African value-chains dedicate numerous efforts to maintain and improve their production in accordance with the binding obligations related to export market standards. To do so, they resort to sustainable and structured approaches to guarantee the safety of the agricultural production. For example, regarding the citrus value-chain, Citrus Research International (CRI), main private research organization of the citrus sector, maintains numerous relations with university research, the public agricultural research Council (ARC), and other private institutions, and partake in several research and technology transfer initiatives.

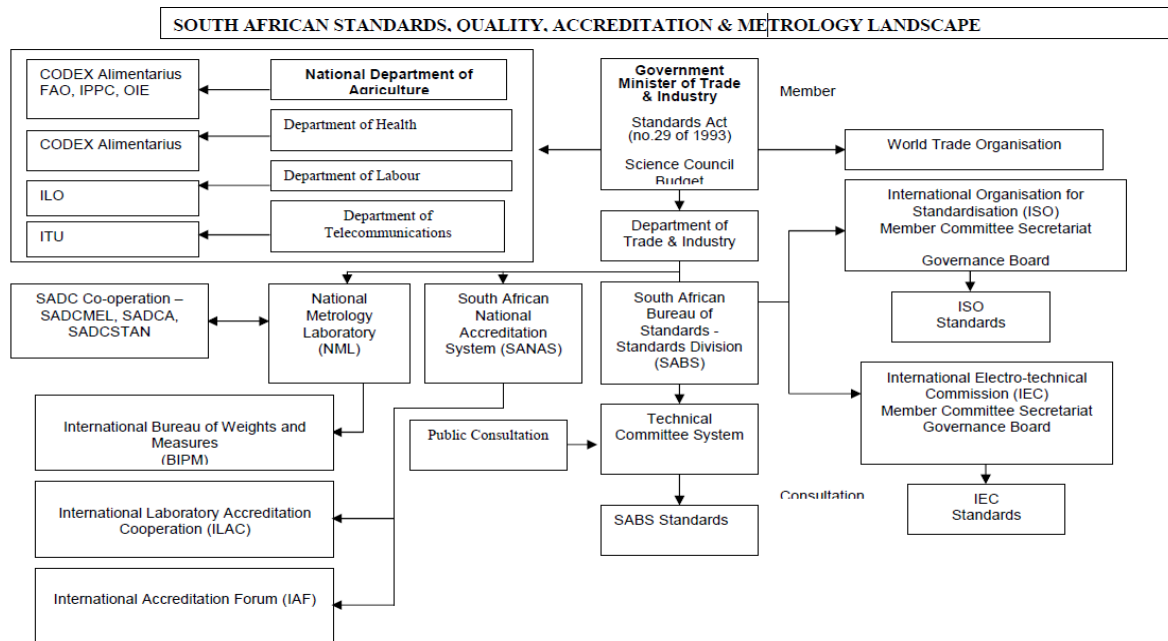


Figure 14: South African regulatory and standards landscape

Source: Jooste and al. (2008)

Accordingly, standards appear in a contradictory way as facilitating the access to the market while standing out as new market entry barriers. The farm produce global market environment is characterized at the moment by the dismantling of the tariff barriers and the liberalization. These factors lead to the emphasis of technical, sanitary, phytosanitary, environmental and social considerations within the commercial regulations. The capacity to address these considerations determines the level of access to the (world but also interrelated domestic) markets and guides the practices of food-processing industries.

As such, for those who succeed to certify, these standards offer new possibilities of value-chain insertion. Moreover, certain agribusinesses do not hesitate to register some of these certifications in their commercial strategy, including those engaging small producers (fair trade, organic production) to benefit from advantageous pricing, new markets and from all the advantages related to these value-adding chains (social image, political engagement, etc.).

However, these standards remain in the majority of the cases additional difficulties, complementing pre-existent constraints, for resource-poor producers (in terms of production factors, infrastructure, capital, etc.). These various standards regulate the practices in South Africa today and represent large-scale obstacles for the producers: binding production stipulations, demanding standards, etc. If in certain value-chains, they do not represent an essential obstacle (sugar cane), in other fruits, citrus, etc.), they can represent main obstacles to market access and to the relations between agribusinesses and producers, in particular the

smallest. As the market alternatives remain few (see above), these private governance forms constraint for the majority of the South African farmers.

2. Historical “Legacies” and Agrarian Structures

Besides the agro-ecological and technical aspects directly related to the production and marketing facets, South Africa’s legacy influencing institutional, political, historical, and socioeconomic factors related to its rural transformation influences contract farming. Analyzing the agrarian structure – i.e. farming practices and their relations to asset endowment, capital, and farm households’ development paths - are essential to understand the modalities, opportunities and limitations of contracts between agribusinesses and farmers. The typology presented in chapter 5 draws indeed the attention at: i) how different farm structures lead to different markets access patterns, but also at ii) how these different structures can mobilize (and thus monopolize) markets, with extremely biased power relations with regards the control over the latter.

Important to note is that due to the evolutions related to the liberalized, oligopolistic, export-oriented, and standards-dependent agricultural sector in South Africa, (small) farmers have presently no choice but to be “qualified” to access the play game and to integrate formal, standardized channels to trade their produce. One should also underscore that South Africa’s apartheid “legacies” in terms of access to land and secure tenure regimes, to inputs and output markets, to infrastructures, technology, services, and quality control systems – subsequently productivity levels, quality and access to markets –surely contributed to the latter. The figure below – again based on an analysis of the citrus sub-sector - shows the importance of the formal market circuits, which, with the exception of fresh produce markets, is mainly channeled through agribusinesses. As mention in the introduction of this study, the informal markets and small independent marketing channels are insignificant in South Africa (even in townships and poor rural regions, the majority of the consumers are purchasing via well established traditional networks).

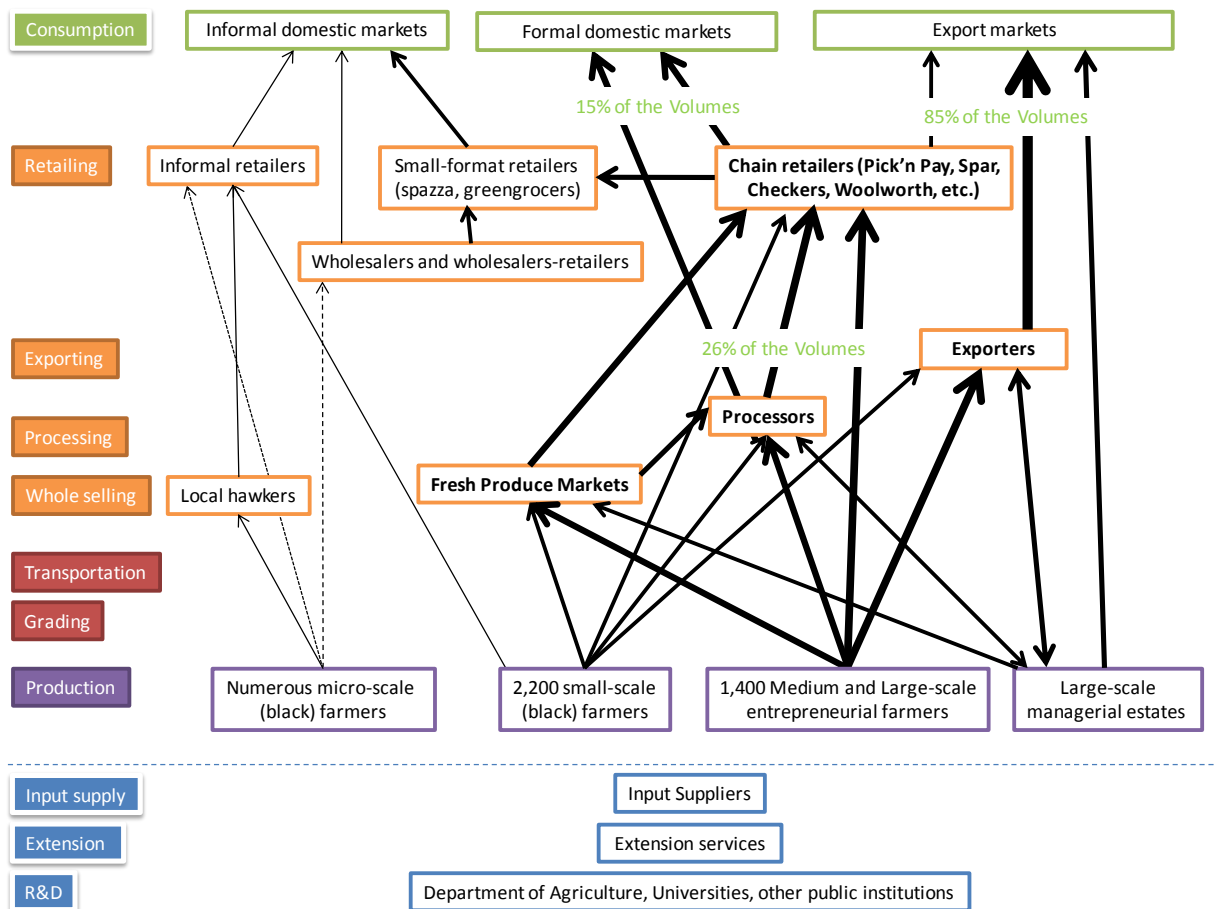


Figure 15: Market relations according to types of producers in the citrus sector in South Africa

Source : Fréguin-gresh et Anseeuw, 2011

The case studies and the broader analysis of the changes within the agricultural sector confirm the permanence of the huge duality of agrarian structures in South Africa (Anseeuw et al., forthcoming). This situation reflects historical “legacies” in terms of past policies, level of past and current public incentives, and concentration of asset endowment and thus of bargaining power, that have strongly and deeply influenced farmers’ development paths. This structural duality remains determinant in the ability of farmers to respond to modern markets’ requirements and, consequently, their possibility to engage into contracts. On one hand, the differences in scale of production and trade across the South African farmers implies huge competition discrepancies between farmers, negatively affecting the smaller ones. On the other hand, these divergences in production scale and trade lead to biased power relations between small-scale farmers and agribusinesses, resulting in disadvantaged bargaining positions for the latter (D’Haese and Van Huylenbroeck, 2005).

The structural duality of South African agriculture presents a substantial risk of marginalization. This is particularly the case within South Africa’s highly competitive agricultural value-chains

and the modernized South African agricultural markets overall. This evolution and the development of linkage between small farmers and agribusinesses could be decisive for the development of the sector and the countries' agricultural restructuring. It is important to note, that in South Africa, the development model retained is one of the development of the agribusiness and the promotion of the relations of the latter with farmers, in accordance with the trajectories engaged in by the majority of large-scale farms and with the various models promoted by the FAO and the World Bank. The South African government does thus not endeavor to restructure the farming sector to include the small production; but to develop instruments to facilitate the integration of these farmers within the dominant model. On one hand, such an approach can only be facilitated on an individual basis, with government strongly supporting farmers or through the implementation of tripartite strategic alliances, between small farmers, agri-businesses and government (often as mediator or landlord). The role of the farmers is however often questionable in such models – as detailed in chapter 5 (Ducastel and Anseeuw, Forthcoming).

3. The agricultural governance structures, collective Action and the capacities to engage, negotiate and defend the interests of the different stakeholders

The existence of farmer's organizations such as producers' co-operatives or farmers' associations facilitate the implementation and the sustainability of contracts engaging small farmers (Runsten and Key, 1996, Bijman 2008; Eaton *et al.*, 2008, among others). Collective action should be analyzed through two different angles, both related to the framework of South Africa's economic regulation through market forces and private standards.

Firstly, it is related to capacity. As mentioned by Sartorius (2004), farmers' organizations are beneficial to commercialization of farm products and agribusinesses' development. On one hand, farmers as individuals, particularly small-scale ones, are at the weak end of the economic exchange system. They therefore have to evolve strategies to enhance their market power. Farmer's associations can be responsible for configuring its members with market requirements including training, extension, technology acquisition, provision of commodity inputs and co-ordinating harvesting-delivery schedules. On the other hand agribusinesses can deal more efficiently with farmers' organizations by acquiring representation in the management structure, as well as, allowing the producers' association to be represented in its own management structure. The agribusiness companies, moreover, can further influence the efficiency of the farmers association by ensuring it maintains records, has no political agenda, is limited in size and that it contains sufficient professional management. However, from the interviews, agribusinesses emphasized the difficulties related to dealing with farmers' and producers' organizations in South Africa. Several of them mentioned not to be willing to work through such organizations anymore and prefer individual, agribusiness-to-farmer procurement

routes. Such practices limit the possibilities for small-scale farmers – as it limits their ability to attain the required thresholds. Support regarding collective action is thus crucial. The latter – as will be seen hereafter – is often related to the weak structuring of these organizations.

Secondly, the socio-economico-political disparities - which influence directly the power balances and are related to the historical legacies and agrarian structures described here above - have implications regarding the relations between agribusinesses and farmers, between farmers and the political sphere. The structuring of the agricultural sector in South Africa is not new. However, as the rest of the economy, until the end of apartheid, only the white farmers were authorized to get organized. Today, all the South African farmers have the possibility of getting organized within labor unions and/or producer associations, at the different levels (local sectoral, national and regional). The organization of actors within certain value-chains can lead to a more equitable power balance between agribusinesses and farmers, or in general on the political scene, can play an important role regarding the definition of broader, national policies (policies oriented towards small-scale farming are the result of social struggles which remodeled power structures).

Although according to different forms, it is a common aspect of several case studies presented in the previous chapters (contracts were signed at farmers' organization level). In the cases presented, three types of structures and producers' organizations were identified, and play a role in the establishment and in the implementation of the contracts with agribusinesses

a) *"Cooperative structures" ": "soft" structures, with little weight in the negotiations with agribusinesses, often affected by numerous conflicts*

As already mentioned, in South Africa, the term of "cooperative" sends back (dismisses) to specific concepts since the dismantling of the former semi-public "cooperatives".

On one hand, it relates to agribusinesses, i.e. capitalized private enterprises (*"investor-oriented firms"*), resulting from the privatization of the former semipublic structures which controlled and regulated until the early 1990s, among others, the marketing of farm produce (Ortmann and King, 2006). These private companies are presently controlling a significant part of South Africa's agricultural produce markets. On the other hand, although almost inexistent, the few smallholder-oriented cooperatives that were set up by the previous regime collapsed mainly due to the fading of public funding. Presently, small or average producers can get organized in "cooperatives" but, in reality (and for the South African government), just represent groupings of producers having a common project *"to promote the rural community from which they arise and the local development "*. Indeed, the government encourages the development of "cooperatives" as organizations which can contribute to improve the development of small farmers and rural communities: the Law on cooperatives (2005) expresses clearly the role of the cooperatives with regarding the creation of jobs, income generation, facilitate the

economic emancipation of previously marginalized populations and the eradication of poverty" (RSA, 2005). In this context, the government made a commitment to supply a favorable legal and supporting environment to cooperatives. However, the establishment of these smallholder cooperatives is often implemented from outside (often in the framework of South Africa's land reform), and lacks the effective collective action.

The example of the producers of the project Letsitele, who are organized in two "cooperatives", is illustrative of the latter. These groupings of producers, in both cases, do not really structure the agricultural activity: i) they arose from the process of land reform with the aim of acquiring land resources: the beneficiaries, to be able to access land, have to get organized into a common legal entity in order to claim within the redistribution/restitution frameworks; ii) even if they have an "official" status and focus on agricultural production, constructive production management remains weak (and remains, in the case of the contractual arrangements, mainly dependent on the agribusiness). Their role in the decision-making is limited, in particular because of the lack of capacities and lack of coordination (even within the so-called cooperative); iii) although these groupings facilitate access to (public) support and capital, only an effective minority benefits from it (because of their implication in the production or the management of the production); iv) the negotiation power of these groupings, particularly, with the agribusinesses remains limited.

b) Producers' associations: with a charismatic leader having a network, they can defend(forbid) the interest of the producers

The two case studies also show that the likelihood to establish contracts is strongly influenced by the networks of the initiator of the linkage. In both case-studies, contracts were existing either with private agribusiness (Winterveld) or with a public body responsible for agriculture and rural development or farmers (Letsitele).

The private sector (much more frequently than public institutions) has proven better abilities in establishing linkages with farmers as they generally have access to more precise information and are more able to carefully screen and identify their future partners - clearly a key success factor of contracts (as mentioned in the literature - see Porter & Phillips-Howard, 1997a; 1997b among others). This being said, it seems that these linkages are facilitated by the farmers' existing networks – allowing the farmer(s) to take the lead in approaching agribusinesses or government. The latter would partly enable him to proof voluntary engagement and to influence contractual arrangements. However, rarely, individual small farmers are able to initiate contracts, as it was the case in the Winterveld Citrus Project where the farmers' organization leader could link up with the agribusiness through his exceptional social and business networks. Farmers, in particular the smaller ones, are often limited in terms of social capital and networks.

As illustrated by the WUFA case, it remained inactive until 2002, when it was taken over by a charismatic and influential leader (including within the business sector). Today, it gathers 145 members (in 2010: 67 producers of citrus fruits, 20 producers of vegetables, 40 seasonal farm workers, 290 temporary farm laborers), mainly retired-farmers, some women and young rural dwellers who inherited a plot in the region. This association has an encouraging role regarding agricultural activities in the region and it is thanks to its activities that commercial productions of citrus (and of vegetables) have developed, that producers reached modern value-chains under contract with an agribusiness (juice processor) and a local franchised. During the contract negotiations (with a juice processor, but also with the supermarket), the association plays a representation role of the collective interests of the member producers. During the negotiations between one of the buyers and the current president, according to our observations, power was relatively balanced, especially since WUFA has several outlet alternatives for its products. If the granted price by Pick' n Pay does not satisfy the producers, they could only deliver a minimal quantity to the supermarket and sell as much as possible on the fresh produce markets (where the price is not fixed in advance however). The situation with the juice processor is similar, considering that the contract specifies only the quality accepted by the company, and not the volumes which must be delivered. However, being shareholders, the producers can choose to deliver the volumes they decide to deliver to the juice processor within the limits of their "quota" (number of parts). In addition, as representative body, of their interests, WUFA enables its members to access diverse supports (technical advice, capacity building, etc.)

From the point of view of the companies, the producers associations allow them to procure at a single collection and conditioning point, to limit the number of interlocutors, and thus to reduce the transaction costs related to the procurement from small farmers who have, each, a limited production in volume.

c) 'Interprofessions' and joint-ventures: Multi-stakeholder initiatives that can influence the relations with agribusinesses

The integration of smallholders as effective stakeholders (even shareholders) seems to provide a constructive base, with regards smallholder's implications/engagements as well as with more balanced agribusiness-farmers power relations.

As such, the sugar cane value-chain is characterized by: i) a continuous public regulation; ii) the up-stream concentration, with only 15 processing companies (13 in Kwa Zulu Natal, 2 in Mpumalanga); iii) a dual production structure which remained concentrated in the hands of large-scale farmers. In this context, the interprofession (South African Sugar Association), which groups a producers' association (CANEGROWERS) and an association of processing companies (South African Sugar Millers Limited), plays an important role in the value-chain, in particular in

the management of the relations between producers and transformers and in the price-setting negotiations with government.

This interprofession significantly evolved since the end of apartheid, leading to transformed power balances at the production and with up-stream levels, allowing to create opportunities for all, including the smallest producers. According to Maloa (2001), the canegrowers' producers' association, CANEGROWERS, was created in 1927 to defend the interests of the independent cane growers (essentially white at the time). Later on, other producers' associations established (Natal Cane Growers' Association representing the Indian producers, Mangete Cane Growers' Association representing the coloured producers, and KwaZulu Cane Growers' Association representing the black producers of the KwaZulu bantustan). All these associations gradually joined CANEGROWERS.

Before 1992, the base of the representation of every group of producers (racially subdivided) in CANEGROWERS (number of seats to the Central committee of the association) was determined in proportion to the tonnage of cane. For that reason, the groups of which the majority of the members were white, which also had access to the largest track of land, and consequently, produced larger volumes, controlled most of the seats (32 of 37 available seats); whereas the coloureds and Indians obtained only some seats and, due to the limited tonnage of cane produced, the black members had no seats. After the end of the apartheid, the mode of representation changed and was articulated on a combination of the volumes of production and the equality of representation between regions of production, whatever the number of producers or the generated volumes, are. Thanks to the new freedom of association rules, the CANEGROWERS association was reorganized, with groups defending the interests of business concerns and the smallholder farmers appeared, changing the mandate of CANEGROWERS.

Concretely, CANEGROWERS enables the producers to have a better negotiation power within the interprofession SASA (in particular regarding price negotiations with government and the distribution of the final price between processors and producers). It also enables to get support for the producers. As such, the fund the Small Cane Growers' Financial Aid Fund, the Sugar Association's Experiment Station and the Extension of DAFF, finance trainings and capacity building for small producers, allowing them to increase their returns and their level of productivity (FAO, on 2004 – also see Box 6).

Box 6 : Smallholder support through the sugar cane inter-profession

The Small Grower Development Trust (SGDT) benefited from substantial support from agribusinesses (R21.5 million since 1992) and has allowed to fund several capacities (institutional representation, technical, managerial, etc.).

The Contractor Support Programme (CSP) is also financed by the agribusiness sector (R3 million on a period of 3 to 5 years) and has been implemented to facilitate the relations between producers and agribusinesses and to support the establishment of agribusiness support services for smallholders.

The Umthombo Agricultural Finance and the Financial Aid Fund facilitate access to credit for smallholders, funded through the inter-profession.

Although it is important to note the role of the State in each of these initiatives, it is at this level that the presence of (private) funders and the facilitation through private enterprises is primordial in order to effectively engage all stakeholders.

4. NGO and Multi-stakeholder Initiatives

Institutional facilitation by international NGOs, donors, and other stakeholders, has assisted in establishing linkages between small farmers and agribusinesses. Institutional facilitation by (national or international) NGOs can also facilitate the relations between producers and agribusiness. With the withdrawal of the state in direct support and with the privatization of information and know-how, NGOs have a growing role to play in the implementation and the durability of the agribusiness-farmer relations.

Although such type of engagements are not extensively developed in South Africa, they do appear in particular related to export markets and certification. This is particularly the case with the Faire-Trade certification, engaging numerous land-reform citrus projects in South Africa (Ikegami 2008). Although the genuine character of such certification models is sometimes questioned (Fouilleux, 2011), engaged producers can be represented and supported on issues related to standards and market access – delivering technical support, campaigning for new prices, revision of existing standards or making the standards more relevant to local farming practices. These certification initiatives also provide an effective platform to coordinate and communicate among certified producers.

Outside the certification frameworks, NGO commitment is important regarding extension services in general, as well as for the institutional support they can provide to the association they support. NGOs have to assure, however, not to create situations of biased competition (preferential buying, under-cost input delivery, etc.).

C. Concluding comments – The importance of external factors

The analysis of contracts engaging smallholder farmers presents indicators regarding the factors influencing the nature and the intensity of these relationships. From our case-studies, and as confirmed in the literature particularly by Minot (2007), cited by Eaton et al. (2008), three types of related/dependent internal factors are identified:

- type of product/product specificity
- Nature of the enterprise
- The nature of the output market

However, the results show that these three factors alone are not sufficient to explain the establishment, nature and sustainability of the contractual arrangements engaging smallholders. In addition to the internal factors, several external factors have a significant role in explaining the relationships between producers and agribusinesses. The latter are:\

- The institutional framework , particularly public incentives enabling contract establishment and implementation
- Private governance through norms and standards
- Historical legacies and agrarian structures
- The agricultural governance structures, collective action and the capacities to engage, negotiate and defend the interests of the different stakeholders
- NGO and multi-stakeholder initiatives

Important to note is that all contractual arrangements engaging smallholder farmers with agribusinesses are benefiting from public support – a result also strongly mushrooming from the description of the trajectories of the smallholders engaged in contractual arrangements. The latter is specific to the South African case – as such questioning contract farming as a tool for market access in other African countries.

CHAPITRE 7 - CONCLUSION, DISCUSSION AND RECOMMENDATIONS: TOWARDS TAILOR-MADE MODELS

This project intended to contribute to the on-going debate about whether and how modern agri-food markets can provide viable market opportunities for small-scale farmers in Africa and at assessing contract farming potential for poverty alleviation. Concretely, it aimed at better understanding the implications for small-scale farmers of different contractual arrangements, contractual choices and forms with processing and/or marketing firms. Based on empirical research and a pluridisciplinary approach, implemented in three different regions on a diversity of commodities, the study focused on i) the characterization of small-scale contract farmers in terms of farming and marketing practices, ii) the different types and forms of contracts in which these smallholders are engaged and iii) the situations in which small-scale contract farmers operate (local dynamics associated with national land and agricultural policies).

Although not always allowing straight cut but often to be nuanced conclusions, some very strong observations, related to the empirical results, can be drawn. from the analysis. Four major points will be detailed in this conclusion/discussion. Firstly, it will synthesize the empirical results related to the characterization of the contracts and contract farmers analyzed. Secondly, it will discuss the overall effectiveness of contracts in a smallholder perspective. Thirdly, the internal and external factors related to the effective establishment of contracts with smallholder farmers will be presented. The latter will then lead to recommendations and tailor made conditions to the contractualization of small-scale farmers.

A. A diverse set of existing contracts, engaging a minority of all-ready better off farmers

The research enabled to identify six types of contractual arrangements between farmers and buyers/agribusinesses:

- Long term total integration contracts (Resource providing contracts);
- Short-term quasi-total integration contracts (Resource providing contracts);
- Production specification contracts (Production management contracts);
- Production management and market specification contracts (Production management and market specification contracts);
- Certified market specification contracts (Market specification contracts);
- Ad hoc ‘informal’ contracts.

These contracts are shaped according to and their efficiency depends on internal factors (type of product/product specificity; nature of the enterprise; the nature of the output market) as well as external ones (The institutional framework, particularly public incentives enabling contract establishment and implementation; private governance through norms and standards; historical legacies and agrarian structures; the agricultural governance structures, collective action and the capacities to engage, negotiate and defend the interests of the different stakeholders). Smallholder farmers do thus access markets through contractual arrangements.

The results, however, show that contract farming is not a panacea for small-scale farmers. Although agricultural income, market access and capacitating services increase for those farmers engaged in contracts (see hereafter), the results highlight that contracts mostly involve the already well-off, who are either large-scale managerial commercial farmers having benefited from public support during apartheid and which enabled them to become highly productive, well-equipped and well-inserted in output markets, or medium-scale farmers who have benefited from case-specific public programmes and/or social or political connections. Both the qualitative and quantitative analyses confirm the existence of entry barriers for small-scale farmers in concluding contracts. The research identifies in particular education and access to land and irrigation as barriers to entry that prevent small-scale farmers from sharing in the benefits of contract farming. As such, although significant changes have occurred in South African agriculture, small-scale farmers with limited access to assets and who rely mainly on diversified incomes (part time work, social grants etc.) to sustain their livelihoods, remain excluded and thus often marginalized.

Hence, the results support the concerns around the inclusivity of contract farming posed elsewhere in the literature (Losch *et al.*, 2010; Poulton *et al.*, 2010; Vorley *et al.*, 2007 amongst others). The results show that contract exclusion is based on entry barriers such as production and commercialization scales and asset endowments, factors that can only be overcome by specific public support. Contract farming is thus only advantageous for those farmers who have reached certain production and productivity levels which, in the case of South Africa, are dependent on past policies and/or massive current public support.

The results lead us to question the effectiveness of contract farming as a “mythic” tool to integrate small-scale farmers into restructured markets and modern value-chains and to reduce rural poverty and inequality. The heavy support and subsidized measures necessary to make contract farming work for the poor casts further doubt on the viability of these instruments. This emphasizes the need for disaggregated analyses of the farming systems, of their different structures, their diverse roles and, subsequently, of their different needs, policy measures and support systems. Rethinking instruments is a must in order to support the different types and roles of agriculture in the context of social dependency and exclusion of productive income-generating activities affecting the rural poor. This is particularly the case in South Africa,

marked by an agrarian history based on exclusion, inequality and premature *de-agriculturalisation* (Eastwood *et al.*, 2006) which has resulted in the loss of agricultural identity and the destruction of agrarian, socio-economic development paths for the vast majority of the rural population. It applies however, also to other developing countries where the majority of farmers is engaged in agriculture solely for subsistence, within a complex and strongly diversified livelihood system.

B. Pros and cons regarding contract farming patterns

The results of our research study provide evidence to feed the debate of supporters and opponents to the development of contract farming involving small producers and agribusinesses.

On the one hand, the analysis of contractual agreements patterns between small producers and agribusiness emphasize some encouraging results: (i) the effectiveness of the development of contracts engaging small producers; (ii) improved agricultural production of contract farmers, (iii) better access to services (training, capacity building, technical assistance, etc.) and resources (production factors, inputs, credit, information), (iv) new opportunities to participate in markets, including “modern” competitive market segments subject to strict norms and regulations (standards for fresh fruit exports for example) which are extremely difficult to penetrate, even for large scale commercial farmers. The analysis of internal factors determining the nature and intensity of the contractual agreements shows that some agro-industrial enterprises, specialized in certain types of commodities, are likely to procure their raw (or first stage processed i.e. packed products) through contract, including with small-scale producers, especially for commodities that require labor-intensive production and practices, special care, manual harvesting, the large-scale production units being unable to provide them the same quality at lower costs. Given their prior experience, agribusinesses -especially multinational exporters operating in many African countries, are well aware of the strengths, constraints, and limitations (in terms of transaction costs and risks) of supplying from small producers as well as from large-scale commercial farmers or from their own estates. Most of the agribusinesses of our study have chosen to implement “mixed” procurement strategies that allow them to maximize the benefits of each type of procurement system. However, in South Africa, these “mixed” strategies are rather the exception than the rule, given the structure of farm production in this country. Although some recent studies (Vermeulen *et al.* 2008; van Rooyen *et al.*, 2010 among others) present an encouraging picture and argue that agribusinesses are likely to increase in the future their procurement from small-scale and emerging farmers, these intentions often correspond to marketing strategies and to a social and “politically correct” statement, and are rarely reflected in practice and with facts on the ground. Finally, another argument for optimists supporter of contract farming rely on job creation which is related to the emergence of the establishment of agribusinesses and the relationships developed with

farmers (in the production and rural processing –including small-scale packing units) and the development of value chains involving a significant number of producers (large-, small- and medium-scale) and a significant workforce employed in the plants, with substantial benefits for local consumers.

On the other hand, the study also provides counter arguments, emphasizing that linking farmers with agribusinesses will not be a solution to facilitate market access for smaller producers and, subsequently, alleviate poverty: (i) the current number of small producers involved in contractual agreements remains limited (in absolute numbers and in comparison with the number of large-scale farmers contracted by agribusinesses); the perspective of development of new contractual arrangements, and the "failures" of the contracts observed, are not encouraging; (ii) those farmers engaged in contracts with buyers/agribusinesses are already better-off or have benefited from significant public support – leading to question the effectiveness of contract farming overall, for resource-poor farmers in particular; (iii) the transfer of production management and factors to agribusinesses - that have progressively become the effective producers in the most vertically integrated systems (among which some "strategic partnerships", joint-ventures and equity schemes) – leads to a transfer of control and decision-rights over production and resources from the farmers to the agribusinesses; it shows the need to fully examine the expectations, interests and motivations of the stakeholders, and question the economic, social and political viability of contract farming for sustainable and equitable relationships and for mutual benefits; (iv) the increasing role of stringent norms and standards in the governance of value chains and "modern" market channels progressively drives contractualization and pushes toward more fully vertical integration (even internalization of agricultural production in estates) which often leads to exclusion of independent small producers: without the "tutelage" and the management transfer to agribusinesses, smallholders are unable to finance the necessary investments up to normalization of their production (which is extremely costly) and to penetrate markets by their own means.

The results of our research study, beyond the implications -whether positive or negative- of the contractual agreements between farmers and agribusinesses, emphasize the need to put in perspective the "old" constraints with the "new" constraints associated with the participation of small producers in contracts. Indeed, "old" constraints farmers are facing related to market access are largely the result of the legacy of past discrimination policies: resources (land, irrigation, credit, inputs, information, etc.), basic infrastructure, effective organizations of producers. In addition to the latter, the farmers are presented confronted to a "new" reality of restructured "modern" markets, of stringent standards and norms, of concentration in the downstream segments. Focusing on contract farming solely to overcome market access for smallholder farming is thus limited - considering the South African context and the many deeper-rooted problems these farmers are facing. The challenges of contract farming and of

the inclusion of small producers impose a broader transformation of the production structures, allowing small farmers to become - along a continuum of improvement - integrated to value chains and markets through which they can meet the demands of consumers, and thus intermediary (processing) agribusinesses, on a sustainable basis (with a degree of risk management that is manageable in scale). That does not mean, of course, that targeted efforts to promote the development of contract farming, particularly for niche markets and very demanding and strict export markets, must be stopped and are not without potential for success.

C. Tailor-made conditions for contract farming to integrate small-scale farmers

The results of the study show that if the general will and expectation is to develop strong, lasting, fair, sustainable, and equitable linkages through contractual agreements between agribusiness and small-scale farmers in a perspective of synergies and positive rural development, it is necessary to recontextualize smallholder farming and develop a correct understanding of the processes at stake and of the small-scale farmers' trajectories, strategies, (often diversified) activities, income sources, assets, resources and production factors.

This statement leads to several questions: Should contract farming seek at any costs to integrate all the small and poor farmers? What is the issue to be solved? Alleviating rural poverty? Improving agricultural productivity? Improving the access to production factors and resources (land, water, inputs, credit, information, etc.)? Providing new job and income alternatives in rural areas? Does contract farming fail to develop because of the internal factors of the linkages that are put in place? Or does it fail because of prior "old" constraints that contracts only cannot address? Are contractual arrangement based on a "win-win", fair, sustainable and lasting solution as they can be economically successful? Or are these forms of vertical integration a new threat, which is socially and politically questionable? These questions must be answered before engaging in an analysis of the strengths, weaknesses, opportunities, threats, and challenges of contract farming in South Africa, so as not to mislead to the wrong target.

Correctly address the issues and target the right parties. First, one needs to carefully identify who are the parties engaged in contract farming (agribusinesses, farmers): what are their purposes? What are their expectations and motivations to engage in contracts? Which are the issues that need to be and can be addressed? Whether and how contract farming can participate in their resolution? Often, contract farming is presented as a tool to alleviate rural poverty and inequality. However, one should firstly and correctly understand what is the role of agriculture in the livelihoods as well as in the strategies of the agribusinesses and of the farmers that are likely to engage in contracts. Indeed, in South Africa, the majority of small-scale poorer

farmers live and evolve in the context of social dependence and exclusion of productive income-generating activities, in particular in the former homelands.

Realistically identify the constraints to be addressed by contracts. Contracts are not a solution to solve (South) Africa's agriculture and rural poverty. The analysis of agriculture in the South African context, but also in other developing countries, shows that there are still major "old/traditional" constraints for small producers in terms of access to production factors and resources, and of production, market and institutional environment, that the contracts solely cannot solve. Small-scale farming, especially when based on the use of family labor, is capable of allowing innovations to overcome many difficulties, but as long as inequalities in farm structures remain, major constraints cannot be overcome through contract farming. Many examples all over the world show that global restructuring and the opening up of new market segments, in which small producers have significant advantages, provide room for maneuver and suggest that they are able to benefit from their strengths and impose their production. However, our study shows that it is necessary to support them and to implement appropriate policies to back them up, as far as major obstacles to produce are priority resolved.

Niche markets, quality and family labor productivity. Third, if during the last fifteen years, agribusinesses oriented their sourcing strategies according to available volumes, and consequently favored procurement systems from large commercial producers or from their own estates, the current trend is to a reversal based quality and traceability and to niche suppliers as a response to the emergence of private governance and standardization mechanisms presently exceeding traditional market logics. Indeed, Sautier and al. (2008) argued that these trends by-passing National Fresh Produce Markets and directly procuring from farmers have been leading to the exclusion of small-scale farmers and to the consolidation of large-scale farmers. However, the social and political imperatives in South Africa lead to increasing room for maneuver, openness and commitment from agribusinesses to procure from small-scale producers, organized into farmers' organizations or not, when they comply with the requirements of their target markets (in terms of quality and traceability management, which involves a thorough each stage of production). As such, small-scale farmers, characterized by high level of family labor productivity and high care advantages, are able to compete and to gain market shares in that stringent environment, if they are correctly supported and accompanied in order to overcome initial inequalities.

Establish mutual trust, respect, and benefits. Fourth, the analysis of contractual arrangements engaging large-scale commercial farmers with agribusinesses (often informal oral agreements between a company and one of its preferred supplier), shows that frequent, regular, and open contacts, on the basis of mutual trust, respect and benefits, with payments upon delivery, with a regular monitoring and quality technical support, are at the key toward "successes" of these arrangements and are often more important than the formalization of the linkage itself. As

such, oral informal agreements, although used between large farmers and agribusinesses, can also raise problems regarding the interpretation of parties' duties and responsibilities, in particular when small-scale farmers are not well equipped in terms of human capital (education, literacy, etc.). In several cases, verbal agreements have caused misconceptions, confusion and conflicts between farmers and agribusinesses, and the unequal bargaining powers have often led to the small farmers being disadvantaged. On contrary, share holding or interprofessional structures, engaging the different stakeholders, established mutual trust, more equitable power relations and leads to more sustainable (contractual) relationships.

Fairness and equity in a long-term perspective, with an incremental process. Fifth, the establishment of contracts should lead to long-term, sustainable, "win-win" linkages between agribusinesses and farmers (or producers' associations). Agribusinesses and farmers should have a common purpose when engaging into the negotiation of a contract which should be based on an equitable principle: contracts should promote agricultural production and market access allowing small farmers to have a decent farm income and at the same time, provide reasonable returns on the investments of agribusinesses. For the small farmers' standpoint, this situation involves a long-term incremental process of coaching, with an implementation involving learning management, capacity building, technical and institutional coordination and – finally – of ownership. Contracts solely based on a "business plan" to generate profits and short-term profitability are rarely successful or appropriate.

Create a "virtuous circle" of private-public investments. Sixth, the case studies we have analyzed in this report demonstrate the feasibility of creating, in South Africa, a virtuous circle combining public policy and private investments. Indeed, the diachronic analysis since the establishment phase of these contracts also shows that the supports provided to small farmers should engage both government and the private sector (agribusinesses, foundations, international donors, local communities). Supports must be addressed in a rational of to-be-invented production and markets regulations (such as property taxes, investment framework regulating food and agricultural products, etc.) that can target and help smaller producers in a context of liberalization and withdrawal of the state from direct support to agriculture ("smart supports").

Establish dialogue – allow for flexibility. A dialogue between farmers and agribusinesses is important for the stability and the sustainability of contracts to avoid misunderstandings, confrontation, and conflict. Consequently, careful and in-depth discussions engaging all the stakeholders (including farmers, the state, the private sector, producers' organizations, unions, NGOs, etc.) must be conducted. Active producers' organizations, the state as well as civil society, are important facilitators to develop sustainable linkages between producers and agribusinesses. The involvement of these actors, beyond the "business only" logic, can contribute to improve the production and market environments (through better information dissemination, consultation, infrastructures, capacity building, technical services, etc.) and the

communication between parties which are needed to re-balance bargaining power. In that context, local NGOs have shown interesting results in some of their projects involving small farmers in terms of provision of services, training, technical assistance, and negotiations of output markets. These initiatives were successful as local NGOs have a legitimate and social "mandate" for the communities in which they operate, as they are often led by members of these communities. However, it is important to define the roles of each part: the civil society can influence and facilitate the process of negotiation during the initial stage of the establishment of a contract, or in case of failure and before resorting to judicial proceedings, it can behave as a third party mediation or arbitration, but it doesn't need to be directly involved in the relationship between producers and agro-industries itself, as it can create conflicts of interests. One other possible solution could be the establishment or the reinforcement of platforms for dialogue, inter-professional organizations, including farmers (representatively represented), the private-sector, the civil society, etc. –as found in some sectors such as in the sugar-cane industry. These types of action arenas can offer opportunities to small farmers to influence the nature of the linkages with agribusinesses, taking into account the views and the constraints of each stakeholder.

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